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JUSTIFIABLE ABORTION—MEDICAL AND LEGAL FOUNDATIONS*

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INTRODUCTION

For some time now there has been an agitation for loosening of the statutory bans on criminal abortion. Many respected and influential voices have been raised in support of this movement but there is no indication that it has originated in any ground swell of discontent with the existing laws. Unlike the penal code lifted out of Exodus in the Connecticut Blue Laws,¹ the abortion laws of the states generally were adopted in a moderate first form and, for the most part, have had no substantial amendment except to tighten them. The relevant sections of the Model Penal Code, tentatively approved by the American Law Institute in 1959, are a violent departure from all existing laws.

Section 207.11. Abortion and Related Offenses.

(1) Unjustified Abortion. A person who purposely and unjustifiably terminates the pregnancy of another otherwise than by a live birth commits a felony of the third degree or, where the pregnancy has continued beyond the twenty-sixth week, a felony of the second degree.

(2) Justifiable Abortion. A licensed physician is justified in terminating a pregnancy if:

- (a) he believes there is substantial risk that continuance of the pregnancy would gravely impair the physical or mental health of the mother or that the child would be born with grave physical or mental defect, or the pregnancy resulted from rape by force or its equivalent as defined in Section 207.4(1) or from incest as defined in Section 207.3; and

* This is the first installment of a two-part article; the second part will appear in the spring issue.

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¹ Conn. Gen. Stat. tit. 53, §§ 29-32 (1958).

- (b) two physicians, one of whom may be the person performing the abortion, have certified in writing their belief in the justifying circumstances, and have filed such certificate prior to the abortion in the licensed hospital where it was to be performed, or in such other place as may be designated by law.

Justification of abortion is an affirmative defense.²

Enactment of this section, so different in form from existing laws and employing terms new to the law of abortion, would build up a large body of case law, if only by way of definition.

The full content and implications of this proposed statute are startling; its undeclared purpose, or that of its framers, is even more so. To make possible an appraisal of the whole argument offered for its adoption, it will be necessary not merely to analyze section 207.11 and to compare it with existing abortion laws, but also to trace the history of such legislation, to consider the status of abortion as a common-law crime, to look at the biological concepts which gave it definite form in the common law, as well as the Aristotelian philosophy and Christian moral concepts which inspired them. We shall look for evidence of a Natural Law against abortion in the laws and common thought of peoples who have gone before us, so that we may determine whether the proponents of the new law are correct in saying that the only opposition to induced abortion is that of dogmatic religion and a population minority.³ In doing so we will glance at the Roman Law of Rome and the Roman Law of the Codex, and the development of the Canon Law which grew up in its shadow. We will see that none of the modern legislation in the United States and England can be traced to any political influence of the Catholic Church but that on the contrary much of it was the product of a political system in which members of that church were allowed no part.

To make such a review possible we have found it necessary to bring together in their present form the existing abortion laws of all the States and of England and the text of the initial legislation in each.⁴

I

The first word which stands out in section 207.11 is "justified." Existing abortion statutes, as will be seen hereafter, commonly use a negative in dealing with the protection of the life of the mother: the statute shall

² Model Penal Code § 207.11(1), (2) (Tent. Draft No. 9, 1959).

³ Model Penal Code § 207.11, comment (Tent. Draft No. 9, 1959).

⁴ Discussion of the legislative background of the abortion laws as well as a collection of such statutes will appear in Part Two.

not apply if, the act shall be punished unless, and so on. Here, however, we have a declaration in positive terms. The circumstances set out will justify the act, but *justify* is not defined.

We may assume that the term is not used in the early sense, preserved in Scottish law, to punish by death, or arbitrarily.⁵ Certainly the definition of the Council of Trent would not be applied in an American statute, but the meaning assigned by the Reformers might be: "Justification is thus a forensic term To justify, signifies not to make the offender righteous, but to treat him as if he were righteous, to deliver him from the accusation of the law by the bestowal of a pardon."⁶ As we still have pleas in justification, a judicial definition under this (proposed) statute would more probably be a showing of facts exculpating or furnishing adequate grounds for what one has done.

However, a new, uniform penal statute will be far more widely read than any of its predecessor laws. Most important, it will at once become required reading for medical practitioners and students who, like the doctors' patients, will hardly recognize "justified" as a legal term of art, but can be expected to take it in what has become its most common sense, *i.e.*, to show an action to be just, reasonable and righteous. We cannot shut our eyes to the fact that Americans today are looking more and more to Government to define right and wrong for them. One who reads the mass of quotations hereinafter collected from representative medical writers must be impressed by the frequency with which medical writers and practitioners withhold approval of some abortions, only because not authorized by existing laws. These laws, while withholding their operation from therapeutic abortions (in varying degrees), do not commit any state to an ethical judgment upon them. There are many considerations which do, and should, restrain the state from undertaking to punish by penal law various offenses against commonly recognized morality.

Another term which is not defined is "grave" or "gravely." There would be an extremely wide range of definition by medical men, and we could scarcely expect that all, or even most, state courts would find and adopt the sense intended by the architects of the Model Penal Code.

More than one conservative legislature sought to hold divorce in check by authorizing decrees only in cases of proved adultery or of persistent physical abuse by husbands. The latter was meant to be ground for a

⁵ Jamieson, Dictionary of the Scottish Language 302 (abr. & rev. 1910).

⁶ Fisher, The Reformation 461 (1873).

decree when it was shown that such cruelty was habitual and had been made a part of the couple's manner of life. An apt term to describe it was the *adjective* "repeated"—happening again and again indefinitely.⁷ The state courts quickly decided that they preferred to make it a participle in the phrase "extreme and repeated cruelty," so that the second cruel act was "repeated cruelty" and ground for divorce.

What would "gravely" impair health? What would be a "grave" physical or mental defect? The *Oxford Dictionary* says: "Of diseases or symptoms, threatening a fatal result, serious."⁸ The *Century* makes it "weighty, important."⁹ *Webster* is substantially the same.¹⁰ By the most commonly used medical dictionary it is made only "severe or serious."¹¹ Obviously the proposed statute would give remarkable leeway to the judgment of the individual medic.

Donnelly has emphasized the increasing tendency to include as valid indications such reasons as any threat to the general health of the mother or a remote threat to the life of the mother. It has been said with a certain element of truth that any pregnancy actually could be considered as a threat to the mother's health or life or both; hence, it is easy to see how rationalization can be over-used and how physicians may vary widely in their opinion.¹²

"Health" is defined by Dorland as "a normal condition of body and mind, *i.e.*, with all the parts functioning normally"; but "normal" is defined only as "agreeing with the regular and established type."¹³ *Oxford* defines health as "soundness of body; that condition in which its functions are duly discharged"¹⁴ and "normal" as regular, usual. *Webster* makes health the state of being hale or sound in body, mind or soul, especially freedom from physical disease or pain.¹⁵ But when we come to "mental health" and, more emphatically, "mental defect" (congenital), we are really lost. Until legislature or court decides in favor of analyst or of organicist, there can be no authoritative definition, and every individual practitioner will be left to define for himself.

⁷ 2 The New Century Dictionary of the English Language 1524 (rev. ed. 1957).

⁸ 1 The Shorter Oxford English Dictionary on Historical Principles 825 (2d ed. 1936).

⁹ 2 Century, *op. cit.* supra note 7, at 680.

¹⁰ 2 Webster's New International Dictionary of the English Language 1095 (2d ed. 1958).

¹¹ Dorland, *The American Illustrated Medical Dictionary* 630 (20th ed. 1945).

¹² Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 *Obst. & Gynec.* 284-85 (1957).

¹³ Dorland, *op. cit.* supra note 11, at 645, 995.

¹⁴ 1 Oxford, *op. cit.* supra note 8, at 878.

¹⁵ 2 Webster's, *op. cit.* supra note 10, at 1150.

II

The foregoing objections to undefined terms could probably be met by reshaping the language of the section. We should now like to consider more fundamental ones.

The American medical profession is a distinguished one. In spite of occasional errors and lapses it has held to its lofty traditions remarkably well—better perhaps than the legal profession. It has worked hard to repress quacks and criminal abortionists, and in general to separate the sheep from the goats. But the goats, unable to get admission to any medical society, can still pass qualifying examinations, obtain and keep state licenses to practice medicine so long as they avoid successful prosecution for any misconduct giving ground for revocation of license.

The Model Code makes no distinction between these two groups, and probably no legislature could do so. A Chicago quack, who could have made his mark in legitimate practice, but not as large an income, was for years a target of the decent profession; but he beat every effort to revoke his license and died several years ago in control of the biggest medical office in Chicago. He and others of his type would be given the same authority to do therapeutic abortions as the most respected leader of the profession. They could supply all the signatures asked for any statements to be filed. They have access to licensed hospitals, some of them well equipped. They would not even have to examine the patient who came to them for an abortion, since the Model Code does not require that the certificate filed state any ground for the belief in the justifying circumstances. One charged with a capital offense must be indicted, the indictment tested for sufficiency, an attorney provided for any defendant who cannot hire his own, time given for preparation of defense, must confront his accusers, have an open trial and a record made. The child in the womb, against whom no charge is made, is given no defender, no time, no hearing, no specifications to support the demand for his destruction. And the appeal, given as of right by most constitutions? Under section 207.11(2)(b), the unborn child could have no appeal even could he in some way have a recognized defender because there would be no record—no allegations and findings—to review.

There have always been evils from which men recoiled because they felt them to be evil and on consideration thought them to be evil, and which human communities have sought to prevent by penal laws, because their effect on the community was thought to be bad. There have always been and always will be violations of all these laws. There will always be murders, thefts, and other crimes known from the early

days of man. It is reasonable to expect that there will always be abortions, even though in some times and places they seem not to have been a problem and even though their frequency may again recede.

Protecting the life of the unborn child has been a major concern of the earliest laws known to us. It has continued to be an object of law-making in every subsequent civilization which has contributed to our own because it springs from a universal feeling which in the past has ceased to move men only when a nation was in decay.

The mere fact that a thing is wrong does not require legislation to ban and punish it. Various considerations could make initiation of such laws unwise. Repeal of existing laws is another matter. When the common judgment of moral laws and of the welfare of the social and political community have been embodied in penal statutes which have over the years proved their place in the popular consciousness by judicial interpretation, re-enactments, codification, amendments to clarify, strengthen and improve procedurally, the moral judgment becomes identified with the statutes. In that situation repeal takes on the character of a vindication of the acts which had previously been condemned. Today far too many look to the statute as their moral determinant; the morality of an act is determined by Government and moral laws are recognized only as embodied in penal codes. And the remarks of medical writers over the last century (as quoted hereinafter) show convincingly that a vocal part of the medical profession has been thinking in the same terms—in terms of the statutory ban alone, and making no further inquiry into moral values.

The earliest English writer on medical jurisprudence, in his lectures under the Acts of 1803, 1822, 1828 and 1837, would have no truck with any induced abortion.¹⁶ After the enactment of the Offences against the Person Act of 1861,¹⁷ his reprobation was contracted to the terms of the statute, and he was ready to urge further loosening of the legal restrictions.¹⁸

Many medical practitioners, as shown by statements of Dr. Alan Guttmacher¹⁹ and others in this country, and Dr. Bourne in England²⁰

¹⁶ Taylor, *Medical Jurisprudence* 594 (1844).

¹⁷ 24 & 25 Vict., c. 100.

¹⁸ Taylor, *The Principles and Practice of Medical Jurisprudence* 790-94 (1865).

¹⁹ *Scope Weekly*, April 2, 1958, p. 9; *Therapeutic Abortion, Doctor's Dilemma*, 21 *J. Mt. Sinai Hosp.* 111, 118-19 (1954).

²⁰ *The King v. Bourne*, [1939] 1 K.B. 687 (1938). This case will be discussed in Part Two of this article.

openly perform what they consider therapeutic abortions according to their own judgment, in violation of existing statutes.

No profession is a guarantee of character. One who is ruthless, mercenary and dishonest will be ruthless, mercenary and dishonest whether he makes his profession medicine or law or physics or embezzlement. He can be counted on to exploit fully any weakening in law enforcement effected by honest and able medical men who step out of their character as medical men to work social justice in individual cases.

In commenting on the terminology of section 207.11 we made no reference to the phrase "substantial risk." The reason is that, somewhat like the therapeutic abortionist, we can see no cure but excision.

Would the determination of substantial risk be made on a statistical basis? If so, what percentage of mortality and morbidity would establish substantial risk? The obstetrician does not abort statistics, but a living fetus. No statistics in medicine are complete or really integrated. Figures for a specific area over a specific period of time, especially if based on uniformly correct methods of observation and reporting, can give us averages which will have value for a variety of purposes. But an average is not an individual human being. If statistics showed that an average of 99 in every 100 died of a certain condition, it would not mean that the chances of living were 99 to 1 against any particular one of those patients.

A patient's doctor may benefit by familiarity with the available statistics, which may serve as an alert and move him to special preparations, but each doctor must determine from his own study of his own patient whether his patient will be the one survivor or one of the 99 if the averages remain unchanged. If his observation suggests a poor prognosis if pregnancy be continued, just how poor must it be to create a "substantial risk"? Neither the Model Penal Code nor any professional code fixes any standard—it is all left to the individual judgment of two men, who may have no judgment at all, or no experience with the complication on which a therapeutic abortion would be based.

The two physicians required to file their opinion are not required to be specialists; the Code does not even specify an obstetrician; and it contains not even a suggestion that one be a qualified internist or one with any knowledge or experience in the complicating disease or condition, although the complication is the heart of the matter.

Section 207.11(2)(a), in addition to authorizing induced abortion to protect the mother—the only "therapeutic abortion"—goes on to provide

for legal abortion to avoid risk of a defective infant, a eugenic consideration; and to abort any fetus or embryo resulting from rape, a social consideration; or from incest, a combination of social and eugenic considerations. None of these could constitute a medical indication for abortion, but some medical literature has a bearing on them. They will be considered hereafter, but first we should like to discuss the basic medical element and Therapeutic Abortion (hereinafter designated as TA).

When a permission to procure an abortion or to destroy fetal life is stated or implied in an American statute, it is invariably based upon a supposed medical necessity. It would be reasonable then to expect that a movement to facilitate TA would bespeak a growing demand by the medical profession—a general demand for more general use of such therapy in the complications of pregnancy already recognized as medical “indications” for emptying the womb, or for recognition of new medical indications. We find on the contrary that medical opinion is ever more sceptical, more critical of the therapy of abortion and embryotomy.

III

In 1860 Pennsylvania enacted its first statute defining and punishing abortion.²¹ Its terms followed closely those of the British Act of July 17, 1837.²² At that time Hugh L. Hodge, M.D., had been giving a course of lectures at the University of Pennsylvania in which he declared the idea of induced abortion to be unthinkable for decent medical men; he made a single exception, in the case of a contracted pelvis making a normal delivery impossible.²³ These lectures were reprinted a number of times, as late as 1872. In 1844 Alfred S. Taylor, M.D., published in London his *Medical Jurisprudence*, in which his views on abortion seemed very similar to those of Dr. Hodge. In 1865, after passage of the Offences against the Person Act of 1861,²⁴ he published *The Principles and Practice of Medical Jurisprudence*. He then declared that the use of the word “unlawfully” in the Act of 1861 impliedly authorized abortion to save the life or health of the mother. He never was able to support this contention by any authority.²⁵

²¹ Pa. Sess. Law 1860, ch. 382, § 87.

²² 7 Will. 4 & 1 Vict., c. 85, § 6.

²³ Foeticide, or Criminal Abortion: A Lecture Introductory to the Course on Obstetrics (4th ed. 1872); *Principles and Practice of Obstetrics* 301 (1864).

²⁴ 24 & 25 Vict., c. 100.

²⁵ See 1 Russell, *Crime—Felonies and Misdemeanors* 517 (9th ed. 1936).

The artificial interruption of pregnancy because of anatomical impediments to normal delivery was early supplanted by Caesarean section. So, the first "indication" to obtain respectable support in modern times was also the first abandoned. Meanwhile, however, German medical men were asserting their right to induce abortions whenever they thought it necessary for the protection of the mother's life. Specifically, they declared that a surgical emptying of the womb in advance of viability was "indicated" in a list of complicated ailments which had grown by the turn of the century to include all tuberculosis, and heart and kidney defects.²⁶ That was a period of strong German influence on American medicine, and reputable medical men in this country began to speak and write of TA as indicated by every complication of pregnancy, and then by ailments having no direct relation to pregnancy, which could be thought of as endangering the life of the mother.

As a lawyer, and not a physician, I shall confine myself to calling medical writers as witnesses. Explanation of certain terms* repeatedly used by them may be of help to the average reader. *Expectant treatment* is essentially waiting and watching. *Conservative* means directed at preserving. *Parity* has no relation to equality but indicates a woman's status as to pregnancies: one never pregnant is nullipara, one who has had a number of pregnancies multipara, or specifically para-2, para-3 et cetera. *Trimester*, for a period of 3 months, is not a medical term but seems to be used chiefly by medical men.

The pregnant woman may suffer from any of the diseases which might be contracted by the nonpregnant, but the effect on her may not be the same. There are other ailments peculiar to pregnancy: ectopic pregnancy, hydatidiform mole (rapid growth fills uterus), (poly-) hydramnios (accumulation of amniotic fluid), and hyperemesis gravidarum (excessive vomiting); abruptio placentae (premature separation), placenta praevia (blocking the outlet from the uterus); preeclampsia, eclampsia, toxemias and hemorrhages peculiar to pregnancy, with uncertain elements as to their cause and relationship.

The first edition of Williams' *Obstetrics* appeared in 1903. It listed²⁷ the recognized indications for TA as follows:

Hyperemesis Gravidarum "is the best recognized";

Chorea of grave type;

²⁶ Taussig, *Abortion, Spontaneous and Induced: Medical and Social Aspects* 278 (1936).
* Appended to this article is a Glossary containing the more frequently used medical terms.

²⁷ Williams, *Obstetrics* 338-45 (1st ed. 1903).

(Cardiac lesions may call for *premature labor*);
Early Hemorrhage, if not followed by expulsion of ovum;
Late Hemorrhage, most often due to Placenta Praevia; to be done at once;
Acute Nephritis not responding to treatment, regardless of fetus;
Toxemia not responding to treatment, regardless of fetus;
Infected Uterus, from an incomplete abortion;
Hydramnios, always; urgent;
Placenta Praevia, as soon as diagnosis certain;
Hydatidiform Mole (occasional) to be done at once regardless of pregnancy;
Diabetes, if condition is alarming, as pregnancy sometimes had bad effect on Diabetes;
Carcinoma of Cervix;
Uterine Myomata.
(Eclampsia considered only as a danger of final months, and as calling for *accouchement forcé*, not TA; Pernicious Anemia and Leukemia occasionally call for induction of *premature labor*);
(Neither Contracted Pelvis nor Incarceration of Retroflexed Uterus is now recognized as an indication).

This list does not include tuberculosis. Ten years later DeLee first published his textbook.²⁸ He commented on the improvement in general therapy and the lessening occasions for TA, then listed the indications given by Williams, with the exception of diabetes and placenta praevia (listed by DeLee as reasons for premature labor) and tumors and uterine infection. He added tuberculosis and toxic goiter; and he made leukemia and pernicious anemia indications for TA instead of for premature labor only—an important change since premature labor means a viable infant. In general terms he added "other diseases" jeopardizing the mother.

Ten or fifteen years later, we are told in a much cited report,²⁹ the commonly used indications for TA included hyperemesis, chorea and other nervous disorders, heart disease in general, nephritis, diabetes, cancer and other neoplasms, anemias, thyroid dysfunction and tuberculosis, and also hypertension, myasthenia gravis and psychiatric conditions.

Taussig tabulated a number of German, Italian and Czech reports for the period from 1917 to 1925, to show TA in 507 cases, divided among Tuberculosis (268), Heart (82), Kidney (36), Nervous and Mental (36), Hyperemesis (9), and other indications (76).³⁰

²⁸ DeLee, *Principles and Practice of Obstetrics* (1st ed. 1913).

²⁹ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 *Linacre Q.* 11 (1952).

³⁰ Taussig, *op. cit.* supra note 26, at 282.

Thirty years ago Professor E. Cova declared in the principal address to the Italian Congress of Obstetrics and Gynecology meeting in Milan, that the recognized indications for TA had been greatly reduced, but that any use of it represented a failure of medical science. He urged all possible effort towards its early complete abandonment.³¹

But Taussig expanded the earlier lists, extending them to diseases, systemic and of various organs, such as the liver, which had seldom been thought of as having any relation to pregnancy;³² and in the 1940's, according to a report cited by Te Linde, the New York Lying-In Hospital listed 44 separate indications.³³

In 1931 the Margaret Hague Maternity Hospital had opened in Jersey City as one of America's great hospitals. Dr. S. A. Cosgrove, head of Obstetrics at Columbia University, was medical director from its opening until a few years ago. He had 1 TA among the first 4,000 deliveries. When he reported this, other hospitals were doing from 1 in 600 to 1 in 100. His report jolted the medical profession into serious inquiry and resulted in abandonment of many of the indications accepted up to that time.

Greenhill in his 1951 revision of DeLee reduces the original DeLee list: "Therapeutic abortion is rarely indicated and medical therapy has improved so much that few affections justify its performance. The following are considered indications" for TA: (1) hyperemesis, with hepatic and renal involvement; (2) advanced TB (rarely); (3) heart disease (rarely); (4) disease of kidneys; (5) German measles; (6) record of previous erythroblastotic babies, if husband homozygous; (7) some neurologic disorders such as Huntington's Chorea; (8) nervous diseases such as multiple sclerosis (rarely); (9) diseases of ovum, such as hydatidiform mole.³⁴

He also declares however: "There is hardly any condition affecting the pregnant woman that may not be an indication for emptying the uterus."³⁵

Others were drastically reducing the list of indications, chiefly by confining more general ones to rare forms, to rare occasions, to special conditions, syndromes et cetera.³⁶

³¹ Address at Congress of Societa Italiana di Ostetricia e Ginecologia, Milan, Jan. 30, 1932, as reported in 98 J.A.M.A. 1393 (1932).

³² Taussig, op. cit. supra note 26, at 292-307.

³³ Te Linde, *Operative Gynecology* 477-78 (1946).

³⁴ DeLee, *Principles and Practice of Obstetrics* 976-77 (10th ed. Greenhill 1951).

³⁵ Id. at 972.

³⁶ Heffernan and Lynch, supra note 29.

Meanwhile the Hague Maternity Hospital was delivering over 100,000 babies, with only 8 TA, and had abandoned the use of TA entirely in 1939. Its influence was being felt. In 1951 Dr. R. J. Heffernan, of Tufts, had declared to the Congress of the American College of Surgeons: "Anyone who performs a therapeutic abortion is either ignorant of modern medical methods of treating the complications of pregnancy or is unwilling to take the time to use them."³⁷ And in a recent conversation with the author Dr. Heffernan reiterated this view with renewed emphasis.

One writer after another testified to the need for more serious inquiry as to the recognized indications, and one after another of the indications began to disappear from the lists: "In conclusion, our experience at the University of Virginia Hospital, a general hospital of 600 beds, is that there are a certain number of pregnant women who must be aborted. The major proportion of these will have renal disease. Persons with cardiac disease and tuberculosis can now be carried through to term by means of skillful handling. Neuropsychiatric disease is not necessarily an indication"³⁸

Eastman's revision in 1956 of the *Williams Obstetrics* listed the best established indications for TA: rheumatic heart disease with a history of previous decompensation; advanced hypertensive vascular disease; and carcinoma of the cervix. "Other indications are more debatable."³⁹

Willson in 1958 approves TA only in extreme cases of chronic hypertension, cancer requiring hysterectomy, degenerative changes from diabetes, and certain conditions in tuberculosis and heart disease which appear to be non-medical.⁴⁰

At an early date we find this broad statement:

Thus we may think it our duty to induce an abortion: (1) as a direct means of saving the life of the mother; (2) to do away with a condition which may threaten her life if gestation continues; and (3) to avoid certain dangers which may supervene if pregnancy is allowed to progress to full term.⁴¹

This seems hardly to accord with Hippocratic tradition. However, it does not seem to have had any immediate effect, at least on the utterances of other writers.

Any real understanding of the changing practice as to TA requires

³⁷ As reported, *id.* at 24.

³⁸ Wilson, *The Abortion Problem in the General Hospital*, in Rosen, *Therapeutic Abortion* 189, 197 (1954).

³⁹ Williams, *Obstetrics* 1077 (11th ed. Eastman 1956).

⁴⁰ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* 165 (1958).

⁴¹ Williams, *Obstetrics* 338 (1st ed. 1903).

consideration of the work and the writings on the individual indications which have at different times been recognized by the medical profession generally or by groups within it. We will take them up, roughly, in the order of their importance in the past, tracing in each instance the development of medical thought by noting, in text, both the writer and the period in which he wrote.

1. *Tuberculosis*

While labor should never be prematurely induced on the mother's account, in some cases it should be induced to save the child before the death of the mother.⁴² Williams, 1903.

Taussig says a group of German, Italian and Czech reports from 1917 to 1925 show 496 TA, of which 268 were for TB: "The most significant indication for therapeutic abortion in point of frequency, is tuberculosis of the lungs. The common observation that a tubercular process grew markedly worse in the course of a pregnancy . . . led, at the beginning of the century, to the almost unanimous opinion that patients who showed any evidence of tuberculosis . . . should be aborted without fail at the earliest possible moment. In the last three decades, however, more careful observations . . . have greatly modified this viewpoint.

"The gradual limitation of indications for interference has been partly the result of more accurate methods of diagnosis, partly due to improved methods of treatment, . . . and partly the outcome of a more careful follow-up of cases after abortion and after full-term pregnancy pointing to the questionable value of interference in many cases."⁴³ Taussig, 1936.

"In fact the question of therapeutic abortion in tuberculosis of the lungs is intimately bound up with the social-economic status of the patient. In a poorly nourished *woman with a large family, we must regard the saving of fetal life with less concern than in the woman who can and will carry out sanatorium treatment* for the required period of time during and after her pregnancy, and *for whom the saving of the child is a matter of great concern*. . . . To summarize, then, it would seem reasonably certain that: (1) Pregnancy has an unfavorable effect on tuberculosis. (2) Latent tuberculosis does not justify interruption. (3) Active or progressive tuberculosis is an indication for interference. (4)

⁴² Id. at 344.

⁴³ Taussig, Abortion, Spontaneous and Induced: Medical and Social Aspects 292-93 (1936).

Therapeutic abortion, in two-thirds or more of these cases, will diminish the harmful effects of the pregnancy on the tubercular process."⁴⁴ Tausig, 1936.

TA is indicated in some cases.⁴⁵ Williams, ed. Stander, 1941.

"[I]f the patient with active tuberculosis becomes pregnant, abortion is not indicated; proper care will enable the patient to go through her pregnancy unharmed."⁴⁶ DeLee, ed. Greenhill, 1943.

"When pregnancy gives evidence of activating the tuberculosis, therapeutic abortion is to be advised."⁴⁷ Osler, ed. Christian, 1944.

"During the past decade there has been a definite swing to conservatism in the consideration of abortion in tuberculosis."⁴⁸ Te Linde, 1946.

"If it [abortion] is to have any scientific justification, *evidence must be sought showing that in general the harmful effects are avoided if the pregnancy is being interrupted. A study of the literature will soon convince any impartial person that no such evidence exists.*"⁴⁹ Jacobs, 1946.

Recognized indications for TA: "(1) Tuberculosis—A most vehement controversy centers over tuberculosis as an indication for therapeutic abortion."⁵⁰ Perlmutter, 1947.

In a group of tubercular mothers studied, mortality for those who went full term was 19.2%; that for those aborted in the first trimester was 38.5%.⁵¹ Barone, 1947.

"The preponderance of evidence indicates that pregnancy exerts no harmful effect on the course of tuberculosis and that abortion is of no therapeutic value."⁵² Bowles & Domzalski, 1949.

At Hague Maternity 128 tuberculosis cases showed no evidence that

⁴⁴ Id. at 296-97. (Emphasis added.)

⁴⁵ Williams, *Obstetrics* 1113 (8th ed. Stander 1941).

⁴⁶ DeLee, *Principles and Practice of Obstetrics* (8th ed. Greenhill 1943), as quoted in Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 *Linacre Q.* 11, 13 (1952).

⁴⁷ Osler, *The Principles and Practice of Medicine* 254 (15th ed. Christian 1944).

⁴⁸ Te Linde, *Operative Gynecology* 478 (1946).

⁴⁹ Jacobs, *Pulmonary Tuberculosis and Pregnancy*, 53 *J. Obst. & Gynaec. Brit. Emp.* 368, 371 (1946). (Emphasis added.)

⁵⁰ Perlmutter, *Analysis of Therapeutic Abortions, Bellevue Hospital 1935-1945*, 53 *Am. J. Obst. & Gynec.* 1008, 1012 (1947).

⁵¹ Barone, *Fino and Hetherington, Pregnancy Complicating Tuberculosis*, 54 *Am. J. Obst. & Gynec.* 475, 487 (1947).

⁵² Bowles and Domzalski, *Changing Indications for Therapeutic Abortion in Pulmonary Tuberculosis*, 9 *Hawaiian Med. J.* 17, 21 (1949).

pregnancy had any deleterious effect.⁵³ Kruger, Cosgrove & Cosgrove, 1951.

A common indication around 1922-1927; discredited by elaborate studies 1930-1943.⁵⁴ Heffernan & Lynch, 1952.

Study of 63 tuberculosis cases showed those who had TA to have a higher mortality than those going on to normal delivery.⁵⁵ Schaefer & Epstein, 1952.

Of all (283) TA at Los Angeles County Hospital, 1931-1945, 61.5% were for tuberculosis. Of 295 TA at Los Angeles County Hospital, 1931-1950, 59.5% were for tuberculosis; but only 2 of the 12 TA done from 1946 to 1950 were for tuberculosis.⁵⁶ Russell, 1953.

"As for pulmonary tuberculosis, countless recent studies demonstrate that pregnancy per se does not affect this disease process and as a consequence interruption of pregnancy on this account has been declining for some time. The development of thoracic surgery and antibiotic medication is giving this conservative trend additional impetus."⁵⁷ Eastman, 1954.

"Even before the advent of the 'miracle drugs', the practice of allowing pregnancy to continue in women with pulmonary tuberculosis had become general. It had been determined that if the tuberculous pregnant woman was treated like the non-pregnant, with pneumothorax or even surgery if indicated, she did well. Therapeutic abortion was considered only for patients less than twelve weeks pregnant, with very active lesions. Since the introduction of streptomycin, para-amino salicylic acid and isoniazid, many of the very active, early cases will also be allowed to continue pregnancy. Today, tuberculosis only rarely necessitates abortion."⁵⁸ Guttmacher, 1954.

"Advanced tuberculosis in the early months which does not respond

⁵³ Kruger, Cosgrove and Cosgrove, *Pregnancy and Tuberculosis*, 78 Va. Med. Monthly 417, 421 (1951).

⁵⁴ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 Linacre Q. 11, 13 (1952).

⁵⁵ Schaefer and Epstein, *Results Following Therapeutic Abortion in Pulmonary Tuberculosis*, 63 Am. J. Obst. & Gynec. 129 (1952).

⁵⁶ Russell, *Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital*, 151 J.A.M.A. 108 (1953).

⁵⁷ Eastman, *Obstetrical Foreword*, in Rosen, *Therapeutic Abortion* xx (1954).

⁵⁸ A. F. Guttmacher, *The Shrinking Non-Psychiatric Indications for Therapeutic Abortion*, in Rosen, *id.* at 18.

to treatment is considered to be an indication by some obstetricians, but this indication should be rare."⁵⁹ Greenhill, 1955.

"There is no clear evidence that pregnancy per se affects pulmonary tuberculosis unfavorably. Nevertheless evaluation must be made of the additional strain of pregnancy, parturition and neo-natal care. . . . Termination of pregnancy because of active pulmonary tuberculosis is indicated in but relatively few patients."⁶⁰ Watson, 1955.

TA for tuberculosis was never done at Margaret Hague Hospital; the hospital has found no evidence of any bad effect of pregnancy on tuberculosis, and has had no death from tuberculosis in its last 56,000 deliveries to the end of 1954.⁶¹ Donnelly, 1955.

Study of 401 full term pregnancies of 149 mothers with minimal tuberculosis, treated and arrested for a year or more before pregnancy, showed they "did best during and after pregnancy and had an excellent prognosis. . . . It was of interest that the number of children in the family did not appear to be an important factor"⁶² Meakins, 1956.

Of 64 TA at Mayo Clinic, 1945-1954, 6 (or 9%) were for tuberculosis. "Pulmonary tuberculosis is becoming a less common indication for therapeutic abortion. This is because of recent work showing that the tuberculous pregnant woman should be treated exactly like the non-pregnant tuberculous woman and the pregnancy itself has no deleterious effect on tuberculous lesions. [Kruger, Cosgrove and Cosgrove, *Pregnancy and Tuberculosis* (1951); Schaefer and Epstein, *Results Following Therapeutic Abortion in Pulmonary Tuberculosis* (1952)] Some still think that selected patients with tuberculosis should be aborted if they are seen in the first trimester."⁶³ Nelson & Hunter, 1957.

Of 550 wives with tuberculosis of genitals, 74.3% were sterile, 18.4% had had a normal child, 5.3% had had an abortion, and 1.9% had had an ectopic pregnancy.⁶⁴ Kovács & Gavallér, 1958.

⁵⁹ Greenhill, *Obstetrics* 329 (11th ed. 1955). (This is the 11th ed. of DeLee, *Principles and Practice of Obstetrics*.)

⁶⁰ Watson, *Outlines of Internal Medicine* 88 (1955).

⁶¹ Donnelly, *Are There Medical Indications for Therapeutic Abortions?*, 52 *J. Med. Soc. N.J.* 112, 114 (1955).

⁶² Meakins, *The Practice of Medicine* 131 (6th ed. 1956).

⁶³ Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 *Obst. & Gynec.* 284, 287 (1957).

⁶⁴ Kovács und Gavallér, *Klinische Erfahrungen In 550 Fällen Weiblicher Genitaltuberkulose*, XI *Acta Medica-Acad. Sci. Hung.* 257 (1958).

New York City TA for tuberculosis were 10.5% of all TA from 1943 to 1947; 9.5% of all from 1951-1953.⁶⁵ Calderone, 1958.

"This has been a disappearing indication for therapeutic abortion since the monumental work of Schaefer *et al.* [Schaefer and Epstein, Results Following Therapeutic Abortion in Pulmonary Tuberculosis, 63 Am. J. Obst. & Gynec. 129 (1952); Schaefer, Douglas and Dreishpoon, The Obstetric Management of the Tuberculous Patient, 1 Obst. & Gynec. 245 (1953)], showing so definitely that these patients get along as well or better than their nonpregnant sisters."⁶⁶ Scherman, 1958.

"Women suffering from active tuberculosis often grow worse during and after pregnancy if they are not properly treated. For this reason early diagnosis is essential. . . . Because of these added difficulties, therapeutic abortion was recommended by most of the older authorities, [Citations omitted.] Recently, however, extensive joint studies by obstetricians and phthisiologists have cast considerable doubt on the wisdom of this advice [citing Kruger, 78 Va. Med. Monthly 417 (1951); Hill, 17 Am. Rev. Tuberc. 113 (1928); Beckman and Kirch, 135 Arch. Gynäk. 438 (1928); Mariette, 203 Am. J.M. Sc. 866 (1942)]." Follow-up records show the same course followed by tuberculosis among pregnant and non-pregnant women. "It may therefore be said that those qualified to render an opinion on the subject are skeptical of any good that may result from therapeutic interruption of pregnancy. *Probably more women would be saved if greater care were given to the treatment of the tuberculosis and less attention paid to the complicating pregnancy.*"⁶⁷ Beck & Rosenthal, 1958.

"This infection [pulmonary tuberculosis] is ordinarily not affected by pregnancy, and can be treated as successfully in gravid as in nonpregnant women. Therapeutic abortions therefore are not often necessary and should be *considered only for the occasional patient who, because of poverty and a large family, cannot treat her TB properly.* Under such circumstances the additional responsibility of caring for a new baby day and night may produce exacerbation of the infection."⁶⁸ Willson, 1958. (This exception obviously represents not a series of clinical studies—a really impossible thing—but an inference in aid of a socio-economic reason for abortion.)

⁶⁵ Calderone, Abortion in the United States 78 (1958).

⁶⁶ Scherman, Therapeutic Abortion, 11 Obst. & Gynec. 323, 329 (1958).

⁶⁷ Beck and Rosenthal, Obstetrical Practice 683 (7th ed. 1958).

⁶⁸ Willson, Beecham, Forman and Carrington, Obstetrics and Gynecology 165 (1958). (Emphasis added.)

There is little evidence that pregnancy itself has a deleterious effect on pulmonary tuberculosis so long as the disease has been diagnosed and reasonable precautions are taken.⁶⁹ Willson, 1958.

"With the success of chemotherapy, therapeutic abortion is seldom necessary. . . . There is little point in carrying out therapeutic abortion after the end of the third month of pregnancy. After that the operation involves as much strain as parturition."⁷⁰ Crofton, 1958.

2. Heart

The quotations from 1903 to 1959 tell the story of the one-time indication of Heart Disease.

"Cardiac diseases occasionally demand the induction of premature labor."⁷¹ Williams, 1903.

Heart disease is an indication for TA only when the muscle is "badly" inefficient, as in advanced myocarditis and decompensation. Other heart conditions may call for *induction of premature labor*.⁷² DeLee, 1913.

Taussig says a group of German, Czech and Italian reports covering the period from 1917 to 1925 show 496 TA, of which 82 were based on heart diseases.⁷³

A common indication around 1922-1927, but discredited earlier than tuberculosis as an indication for TA.⁷⁴

"The conduct of pregnancy and labor complicated by heart disease has undergone much change in the last 10 years, since the cardiologists have taken a hand in the matter. They have shown us obstetricians that the heart can be treated successfully even though the woman is carrying the added burden of pregnancy."⁷⁵ DeLee, 1928.

A report on 196 organic heart cases by Sloan Hospital for Women (N.Y.C.) concluded: "It is our experience that the response to medical treatment of the pregnant women with heart disease and circulatory stasis is satisfactory; often quite as satisfactory as in like conditions in the nonpregnant. . . . In a case in which compensation cannot be restored with thorough medical treatment, a grave situation is present. . . .

⁶⁹ Id. at 214.

⁷⁰ Crofton, Textbook of Medical Treatment 142 (7th ed. 1958).

⁷¹ Williams, Obstetrics 343 (1st ed. 1903).

⁷² DeLee, Principles and Practice of Obstetrics 1014, 1018 (1st ed. 1913).

⁷³ Taussig, Abortion, Spontaneous and Induced: Medical and Social Aspects 282 (1936).

⁷⁴ Heffernan and Lynch, Is Therapeutic Abortion Scientifically Justified?, 19 Linacre Q. 11, 15-17 (1952).

⁷⁵ DeLee, Yearbook of Obstetrics and Gynecology 50 (1927).

In this medical impasse, it is usually best to trust nature more and art less."⁷⁶ Corwin, 1927.

A report on a study of the records of 45,320 deliveries in three hospitals concludes: "Prognosis is affected by the care given and the skill used in the treatment of an individual patient. . . . Undue pessimism as regards the prognosis of all cardiac patients who are pregnant is not justified by the facts; there appears to be too little faith in the ability of the heart to withstand pregnancy" ⁷⁷ Reid, 1930.

Heart disease is rarely an indication.⁷⁸ Cova, 1932.

A study of the records of 29 nulliparae and 41 parae-1 to -10 showed the average age at death for the former was 42.1 years, for the latter 42.0 years. The difference was called insignificant. However the authors went on to speculate that perhaps only the fittest rheumatic cardinals married and had children, and so they should show a longer average life than the nulliparae.⁷⁹ Gilchrist & Murray-Lyons, 1933.

A review of pertinent literature showed the same average age at death for primiparae and multiparae. "[W]hatever method is used, it fails to show conclusively that pregnancy *materially* alters the course of rheumatic heart disease."⁸⁰ Jensen, 1938.

TA is indicated for some cardiovascular ailments.⁸¹ Williams, ed. Stander, 1941.

A report on 568 cases of rheumatic heart with pregnancy, handled without TA, declares: "[I]t is probable that practically every pregnancy encountered in a patient with heart disease can be brought to a successful spontaneous termination if adequate prenatal care is instituted and if absolute bed rest is enforced when indicated."⁸² Gorenberg, 1943.

"[H]eart disease remains one of the more common causes for abortion, but there is much difference of opinion concerning it by obstetricians and internists. Cosgrove, for example, interrupts pregnancy only when there is actual heart failure. This seems to us to be an extreme point of view when one considers the high obstetric mortality with car-

⁷⁶ Corwin, Herrick, Valentine and Wilson, *Pregnancy and Heart Disease*, 13 *Am. J. Obst. & Gynec.* 617-18 (1927).

⁷⁷ Reid, *Prognosis of Heart Disease in Pregnancy*, 19 *Am. J. Obst. & Gynec.* 63, 71 (1930).

⁷⁸ Cova, Address at Congress of Societa Italiana di Ostetricia e Ginecologia, Milan, Jan. 30, 1932, as reported in 98 *J.A.M.A.* 1393-94 (1932).

⁷⁹ Gilchrist and Murray-Lyons, *Does Pregnancy Hasten the Fatal Termination in Rheumatic Heart Disease*, 40 *Edinburgh Med. J.* 587, 588-96 (1933).

⁸⁰ Jensen, *The Heart in Pregnancy* 193 (1938).

⁸¹ Williams, *Obstetrics* 1116 (8th ed. Stander 1941).

⁸² Gorenberg, *Rheumatic Heart Disease*, 45 *J.A.M.A.* 835, 840 (1943).

diac patients. However, one should never lose sight of the fact that *these patients may be as poor surgical risks for abortion as they are obstetric risks.*"⁸³ Te Linde, 1946.

Cardiac disease was declared to be the complication recognized with "greatest unanimity" as an indication for TA.⁸⁴ Perlmutter, 1947.

"Likewise heart disease is a rare indication."⁸⁵ DeLee, ed. Greenhill, 1951.

"Heart disease should be a rare indication."⁸⁶ Greenhill, 1955.

"In some clinics it is now the leading cause of maternal death and in others is exceeded only by hemorrhage as the leading cause." Of 295 TA at Los Angeles County Hospital from 1931 to 1950, 34 (11.2%) were for cardiac indications, 32 of these being rheumatic. During the period of 1946-1950, they made up half of the 12 TA.⁸⁷ Russell, 1953.

The statistics of Corwin, Herrick, Valentine, and Wilson, 1927, bear out an opinion gained from seven years' experience that pregnancy and childbearing when properly supervised and safeguarded is not a great menace to the safety or life of the average ambulant case of heart disease. "The opinions of these eminent cardiologists support the contention that heart disease complicating pregnancy can be successfully managed by competent prenatal care. This involves an early evaluation of the cardiac status of the patient. In severe cases success depends upon teamwork."⁸⁸ Heffernan & Lynch, 1952.

"Rheumatic heart disease with a history of previous cardiac failure constitutes the main exception to the observation made in the previous paragraph that 'pregnancy seldom aggravates organic disease'. Indeed, were it not for this particular complication, the word 'seldom' in the statement could well nigh be changed to 'never'. It must be recalled, however, that these grave cases represent only a small minority of the total rheumatic group and that the majority of gravidae in this general category can, with judicious care, be carried through several pregnancies safely. In the severer cases, furthermore, valvulotomy is becoming a sound alternative to therapeutic abortion, although the place of the

⁸³ Te Linde, *Operative Gynecology* 478 (1946). (Emphasis added.)

⁸⁴ Perlmutter, *Analysis of Therapeutic Abortions, Bellevue Hospital 1935-1945*, 53 *Am. J. Obst. & Gynec.* 1008, 1012 (1947).

⁸⁵ DeLee, *Principles and Practice of Obstetrics* 977 (10th ed. Greenhill 1951).

⁸⁶ Greenhill, *Obstetrics* 329 (11th ed. 1955).

⁸⁷ Russell, *Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital*, 151 *J.A.M.A.* 108, 109-10 (1953).

⁸⁸ Heffernan and Lynch, *supra* note 74, at 15.

operation in pregnancy has yet to be completely established.”⁸⁹ Eastman, 1954.

“Cardiac Disease. Fewer and fewer patients are being aborted for cardiac disease. Careful medical supervision with intelligent use of a salt-poor diet, weight control, diuretics, digitalis, antibiotics, anticoagulants, rest and improved anesthesia for delivery have made it possible for many cardiacs to have children who yesteryear would have been aborted, or who, unaborting, would perhaps have died. The care the patient takes of herself, and the quality of the medical care she receives, are almost as important as the gravity of the organic lesion. Even if the organic lesion is severe, the patient’s desires should be given great weight, for no physician is astute enough to guarantee the performance of any serious cardiac in pregnancy, labor and puerperium. If the patient is extremely desirous of continuing the pregnancy, is able and willing to cooperate to the full, and knows the approximate risk involved, most obstetricians will allow pregnancy to continue. So far as we know, if the cardiac patient survives her accouchement, the disease is not rendered worse by the experience. On the other hand, *if the severe cardiac patient cannot avail herself of proper care*, or is resistant to undertaking the risk pregnancy implies, abortion is justified.”⁹⁰ Guttmacher, 1954.

N.Y. City Health Dept.: TA for circulatory complications from 1943 to 1947 were 17.3%; from 1951 to 1953, 10.9%.⁹¹

Margaret Hague Hospital had 2 TA for rheumatic heart disease, both in 1935; of these one mother died 4 days later. Since that time the hospital had over 500 cardiacs with no therapeutic abortions, and a maternal loss of 2 (.4%, as compared with 2.6% loss among all women, puberty to menopause), 1939-1952. A 10-year follow-up on all rheumatic cardiacs entering this hospital from 1937 to 1942 totalled 260, showed 188 still alive, those with most pregnancies having the longest life.⁹² Donnelly, 1955.

“[H]eart disease should be a rare indication.”⁹³ Greenhill, 1955.

“It is not often necessary to terminate pregnancy because of heart

⁸⁹ Eastman, Obstetrical Foreword, in Rosen, Therapeutic Abortion xix-xx (1954).

⁹⁰ A. F. Guttmacher, The Shrinking Non-Psychiatric Indications for Therapeutic Abortions, in Rosen, id. at 17-18.

⁹¹ Calderone, Abortion in the United States 78 (1958).

⁹² Donnelly, Are There Medical Indications for Therapeutic Abortions?, 52 J. Med. Soc. N.J. 112, 116-17 (1955).

⁹³ Greenhill, Obstetrics 329 (11th ed. 1955).

disease if the patient can be treated properly. Termination can be considered for those with advanced lesions *who can neither obtain sufficient rest nor follow an acceptable program of treatment.*"⁹⁴ Willson, 1958.

Mayo Clinic, 1945-1954, had 64 TA, of which 9 (14%) were on cardiac indications. "In general, fewer and fewer patients are being aborted for cardiac reasons. Modern use of digitalis, diuretics, salt-free diets, control of weight, rest, and cardiac surgical procedures provides obvious reasons. . . . [T]he judicious use of therapeutic abortion still has a place in severe cardiac disease It is generally true that a cardiac patient will not have her longevity adversely affected by pregnancy if she survives the pregnancy."⁹⁵ Nelson & Hunter, 1957.

A report on 210 cases of pregnancy with rheumatic heart disease shows that women with cardiac insufficiency tolerated labor well if properly attended before; bad effects, and sometimes death, if labor came on during an attack of heart failure.⁹⁶ K'ang Yang Chu, 1957.

"As I see it there are only two medical indications for abortion that still need serious discussion, notably cardiac and hypertensive diseases."⁹⁷ Donnelly, 1958.

Rheumatic heart disease is "the group which in the literature seems to be the most persistent. Even here many reports [Connell 1954; Glover, McDowell & O'Neill 1955; Gorenberg & Chesley 1953, 1954; Heffernan & Lynch 1953; Litzenberg 1955; Ullery 1954] have shown that with proper care, which might include constant hospitalization or bed rest, these patients can tolerate pregnancy with little or no resultant damage. It has been stated that even the most severely ill of these individuals when pregnant and at constant bed rest have no greater load or strain on the heart. Economically, of course, this becomes a problem, but are we to do a therapeutic abortion for socio-economic reasons?" Coronary artery disease is "a rare complication."⁹⁸ Scherman, 1958.

C. L. Mendelson, 1952, "has found that coronary disease and preg-

⁹⁴ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* 165 (1958). (Emphasis added.)

⁹⁵ Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 *Obst. & Gynec.* 284, 286-87 (1957).

⁹⁶ K'ang Yang Chu, *Rheumatic Heart Disease Complicating Pregnancy* (*Peking Med. Coll. Hosp.*), 5 *Chinese J. Obst. & Gynec.* 451-57 (1957).

⁹⁷ Donnelly, as recorded in Calderone, *op. cit. supra* note 91, ch. 6 (*Therapeutic Abortion in the United States*), 102.

⁹⁸ Scherman, *Therapeutic Abortion*, 11 *Obst. & Gynec.* 323, 326 (1958). (Footnotes omitted.)

nancy should be treated separately. He states that the pregnancy produces no increased strain on the coronary system and does not predispose to coronary occlusion. He thinks vaginal delivery is the best method."⁹⁹ Scherman, 1958.

"According to Ullery [67 Am. J. Obst. & Gynec. 834 (1954)], this complication [congenital heart disease] if not too severe and if not associated with cyanosis can be carried frequently to a successful termination. With cardiac surgery and antibiotics to prevent subacute bacterial endocarditis, much can be done for these individuals."¹⁰⁰ Scherman, 1958.

"Spontaneous Subarachnoid Hemorrhage. This uncommon complication is usually the result of rupture of a congenital cerebral aneurysm. . . . Mortality in these patients as in the unpregnant state is very high. . . . This condition always carries a high mortality in the non-pregnant state, and it is doubted that pregnancy not associated with hypertension adds materially to this risk. . . . It seems reasonable that these individuals should have cesarean sections" (It occurs usually near the end of term.) Scherman, 1958.

Calcific pericarditis is "usually not an indication for therapeutic abortion. . . . These cases are usually asymptomatic. They are usually the result of some past suppurative or tuberculous pericarditis" Scherman, 1958.

Mitral stenosis is the only cardiac complication often found in women under 45. "At one time, mitral stenosis was so feared that women with this lesion were warned to remain single. If they married, the prevention of conception was recommended and when they became pregnant, abortion was advised. This attitude, however, is not justifiable at present since 70 to 90% of all pregnancies complicated by mitral stenosis terminate spontaneously without difficulty [Hamilton 1947]." With proper care the death rate is about the same as for the non-pregnant. "While many obstetricians and cardiologists advise therapeutic abortion and artificial interruption of pregnancy for those who are grouped in these unfavorable classes [the wholly incapacitated and those who suffer distress from the past exertion], recent reports of carefully conducted series of cardiac patients indicate that better results can be obtained by complete rest in

⁹⁹ Ibid.

¹⁰⁰ Ibid.

Id. at 326-2*

Id. at 327.

bed with controlled cardiologic and obstetric management in a hospital than by the artificial termination of gestation."³ Beck & Rosenthal, 1958.

Heart, lung and kidney ailments are now of secondary importance for TA.⁴ Guttmacher, 1958.

A comparison of the mortality rate to 1951 of primiparae and multiparae delivered at Hague Maternity Hospital, 1937-1942, showed that mortality had not increased with the number of pregnancies, the highest being parae-1 and parae-5 (37% and 44%), with little difference among parae-2, -3, -4 and -6 (25%, 21%, 23%, 22%). Of the total 260, 129 had their first pregnancy during the period from 1937 to 1942. Their mortality rate decreased with each increase in parity, from 37.5% for parae-1 down to 11.1% for parae-4 and over.⁵ Donnelly, 1955.

"With due care and attention the great majority of cardiac patients can be safely shepherded through pregnancy." Davidson, 1959. Yet Davidson advises early TA in heart cases because of the extra burden imposed by pregnancy, and comments that care of another "toddler" may be a greater burden than pregnancy.⁶

3. *Kidneys*

The mention of Kidneys has always been frightening to Americans. However, we may expect to have continued mention of them by medical men through the foreseeable future, since they are both the source of many important diseases and a valuable indicator as to others.

Chronic nephritis was a common indication around 1922-1927.⁷

Chronic nephritis (Bright's Disease) is a real danger and indication for TA—one of a diminishing few left.⁸ Cova, 1932.

Some kidney ailments are indications for TA.⁹ Williams, ed. Stander, 1941.

Chronic nephritis or hypertension frequently causes spontaneous

³ Beck and Rosenthal, *Obstetrical Practice* 695, 698 (7th ed. 1958).

⁴ *Scope Weekly*, April 2, 1958, p. 9.

⁵ Donnelly, *supra* note 92, at 116.

⁶ Davidson, *Principles and Practice of Medicine* 209-10 (4th ed. reprint 1959). For further follow-up on certain Hague Maternity Hospital cardinals see Gorenberg and Chesley, *Rheumatic Heart Disease in Pregnancy: The Remote Prognosis in Patients With "Functionally Severe" Disease*, 49 *Annals of Internal Med.* 278, 304 (1958).

⁷ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 *Linacre Q.* 11 (1952).

⁸ Cova, as reported in 98 *J.A.M.A.* 1393 (1932).

⁹ Williams, *Obstetrics* 1115 (8th ed. Stander 1941).

abortion. Most trouble, however, occurs after the fetus is viable and thus it creates no TA problem. Most chronic hypertensives go through several pregnancies to normal delivery of normal children without any deterioration in the condition of the mother.¹⁰ Browne, 1942.

"Disease of the kidneys . . . is a definite indication."¹¹ DeLee, ed. Greenhill, 1951.

Chronic nephritis and glomerulonephritis were said to cause hypertension and kidney damage. The authors quote Browne, 1942, that there-in lies no TA indication; apparently these ailments are not affected by pregnancy. Mortality rates for England and Wales from 1911 to 1922 showed more deaths of men than of women from chronic nephritis. Women up to the age of 55, married and unmarried, showed the same mortality rate. Therapy is more effective than TA and avoids the danger of hemorrhage or infection.¹² Heffernan & Lynch, 1952.

There was one TA for porphyrinuria (1932) among 295 TA at Los Angeles County Hospital, 1931-1950; 37 (12.5%) renal & hypertensive, including toxemias after nephrectomy, pyelitis (none since 1939) and renal tuberculosis.¹³ Russell, 1953.

"Kidney Lesions. The previous surgical removal of one kidney, or its congenital absence, does not interfere with pregnancy provided only that the remaining kidney has normal function. If, on the other hand, careful investigation shows even moderate impairment of the solitary kidney, pregnancy presents a serious hazard.

"Pyelitis. Before the sulfa and antibiotic era, intractable pyelitis often necessitated interruption of pregnancy. However, today this is almost never necessary.

"Nephrolithiasis [kidney stones] is usually not a serious complication of pregnancy. If, however, the condition is bad enough to necessitate surgical removal of the renal calculi, it is safer to terminate the pregnancy first.

"Acute Glomerulonephritis is a rare complication of pregnancy. Pregnancy may be allowed to continue without altering the prognosis for recovery."¹⁴ Guttmacher, 1954.

¹⁰ Browne, Pregnancy in the Patient With Chronic Hypertension, 49 J. Obst. & Gynaec. Brit. Emp. 1, 13 (1942).

¹¹ DeLee, Principles and Practice of Obstetrics 977 (10th ed. Greenhill 1951).

¹² Heffernan and Lynch, *supra* note 7, at 11.

¹³ Russell, Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital, 151 J.A.M.A. 108, 110 (1953).

¹⁴ A. F. Guttmacher, The Shrinking Non-Psychiatric Indications for Therapeutic Abortion, in Rosen, Therapeutic Abortion 19 (1954).

Pyelitis problems were for many years very difficult. However, since the introduction of sulfa drugs and other antibiotics, these former difficulties no longer seriously complicate pregnancies. There is now no need for TA at Margaret Hague Hospital.¹⁵ Donnelly, 1955.

Of 64 TA at Mayo Clinic, 1945-1954, 6 (9%) were due to renal disease. "Certain renal indications for abortion are accepted universally. Six (9 per cent) of our patients had renal disease. When grossly demonstrable renal impairment is present . . . therapeutic abortion should be seriously considered. . . . All 3 of the patients who had renal insufficiency have died of the renal disease. . . . Active renal tuberculosis constitutes a justifiable reason for interruption of pregnancy."¹⁶ Nelson & Hunter, 1957.

Psychiatric and eugenic indications and past or present malignancy have relegated "the old orthodox trio—heart, lung and kidney—to secondary importance."¹⁷ Guttmacher, 1958.

"Chronic nephritis is one of the most widely accepted reasons for therapeutic abortion. Even here, the available information has not crystallized completely. Some authors [Heffernan and Lynch, *What is the Status of Therapeutic Abortion in Modern Obstetrics?* (1953)] have shown that the feared 'decrease' in the kidney's performance, which was thought to occur in about 50% of pregnant nephritis patients, is in reality attributable to a recognized downward trend in nephritis in general and frequently has no connection with pregnancy.

"Hydronephrosis can usually be treated by ureteral or kidney pelvic catheterization without considering the pregnancy.

"Polycystic Kidneys. Most . . . can be brought to a successful termination with the use of antibiotics to control infection as shown by Millar [60 J. Obst. & Gynaec. Brit. Emp. 868 (1953)]

"Single Kidney. . . . It is well known that hypertrophy and compensation of a remaining kidney occurs shortly after nephrectomy. Certainly . . . [if no malignancy] there exists no indication for therapeutic abortion. . . .

"Renal Stones. Medicine has progressed to the state where renal calculi can be treated by methods far superior to therapeutic abortion . . . with surgery and antibiotics. . . .

¹⁵ Donnelly, *Are There Medical Indications for Therapeutic Abortions?*, 52 J. Med. Soc. N.J. 112, 113 (1955).

¹⁶ Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 Obst. & Gynec. 284, 287-88 (1957).

¹⁷ *Scope Weekly*, April 2, 1958, p. 9.

"Pyelonephritis. . . [G]enerally no longer acceptable by most authors as an indication for therapeutic abortion. Here again more practical means of therapy have been devised."¹⁸ Scherman, 1958.

Nephritis with prolonged and marked albuminuria and tendency to anemia, edema and uremia may be aggravated by pregnancy, and the fetus may die. If these changes do not respond to treatment, TA is indicated.¹⁹ Beck & Rosenthal, 1958.

"The immediate danger to the mother is not very great. A fairly large percentage of pregnancies, however, terminate prematurely or the fetus dies—death of the fetus and premature labor coming earlier and earlier with each successive pregnancy. . . . It is thought that pregnancy has a deleterious effect in nephritis and, accordingly, somewhat reduces the life expectancy of the mother. . . . Pyelitis complicates pregnancies about once in one hundred cases. . . . Pyelitis usually responds well to treatment without any ill effect on the mother or the child. . . . Rarely, the condition progresses in spite of all therapeutic measures and spontaneous premature labor follows.

"Many cases of pregnancy after nephrectomy have been reported and in most of them no great difficulty was encountered, aside from the occurrence of a slight albuminuria in the latter months. Pregnancy and labor, accordingly, should be allowed to take their natural courses, but under strict supervision. If renal insufficiency or infection develops, or symptoms of preeclampsia appear, the uterus should be emptied."²⁰ Beck & Rosenthal, 1958.

Kidney diseases not discussed as an indication, except in relation to hypertension.²¹ Willson, 1958.

4. *Hypertension*

Hypertension has been the subject of much study in connection with certain cardio-vascular and kidney ailments and diseases or symptoms peculiar to pregnancy, with reference particularly to identifying cause and effect.

"Essential or hormonal hypertension is a persisting, usually progressing, elevation of blood pressure due to constriction, at first functional, later organic, of arterioles widely distributed in the body, according to many investigators primarily of hormonal origin from renal

¹⁸ Scherman, *Therapeutic Abortion*, 11 *Obst. & Gynec.* 323, 327-28 (1958).

¹⁹ Beck and Rosenthal, *Obstetrical Practice* 916 (7th ed. 1958).

²⁰ *Id.* at 711-14.

²¹ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* 282-95 (1958).

ischemia (temporary lack of blood due to contraction of a blood vessel). It makes up a large percentage of patients with hypertension, some estimates rising to 95 per cent of patients seen in general medical practice. . . .

"Probably it is too early to say the mechanism of hypertension in man is understood, but much advance has been made from the fairly recent period of almost entire ignorance of the mechanism of essential hypertension. . . . However, at times autopsy study of patients, known to have had hypertension, fail to show other than very slight lesions in the arterial system.

"Consequently it is thought that in the beginning the vascular lesion is vasoconstrictive and so functional, not organic. Later the arterial lesions, just noted, appear and progress to make more permanent the peripheral resistance. . . . Lesions in the larger arteries appear to be the result of the strain on them by reason of the hypertension along with the degenerative influences that lead to arteriosclerosis without hypertension. The arteriolar lesions may be caused by inflammatory or degenerative toxic processes, or they may be the result of the hypertension; the latter seems now to be the more favored view. The trend of opinion is towards a hormone cause, the hormonal action originating in renal ischemia. . . .

"The cause of the hypertension should be discovered, if possible, for success of treatment of some forms depends in very large measure on cause."²² Osler, ed. Christian, 1944.

High blood pressure and hypertension were commonly taken as indications for TA around 1922-1927.²³

Hypertension (chronic vascular hypertension) is not a disease, but is one manifestation of an abnormal vascular system. It occurs in later months of pregnancy, producing edema and high blood pressure. The treatment is usually the simple treatment for both of these conditions. TA if necessary; but it seldom is necessary before viability, even with superimposed acute toxemia.²⁴ DeLee, ed. Greenhill, 1951.

A report on Los Angeles County Hospital from 1931 to 1950 lumps renal and hypertensive diseases as aggregating 37, or 12.5%, of the 295 TA. The group included toxemias after nephrectomy, pyelitis, renal

²² Osler, *The Principles and Practice of Medicine* 1127-29 (15th ed. Christian 1944).

²³ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 *Linacre Q.* 11 (1952).

²⁴ DeLee, *op. cit.* *supra* note 11, at 357-61.

tuberculosis. Since 1940 pyelitis was not commonly listed as indicating TA.²⁵ Russell, 1953.

Chronic nephritis, or hypertension, frequently causes spontaneous abortion, but most trouble occurs after the fetus is viable. It creates no TA problem. Most chronic hypertensives go through several pregnancies to normal delivery of normal children, without any deterioration in the condition of the mother.²⁶ Heffernan & Lynch, 1952.

"Contrary to previous belief, it is now well established that the great majority of women with uncomplicated essential hypertension can go through pregnancy without appreciable hazard as far as they themselves are concerned; moreover, numerous follow-up studies on such patients show that the pre-existing level of hypertension is not permanently affected by childbearing. It is true that there are certain exceptions to this generalization and that fetal outlook in such cases is less favorable than usual; nevertheless, it can be said without exaggeration that for every ten hypertensive women who would have been aborted in 1930, nine are enjoying successful pregnancies today and without residua of any kind."²⁷ Eastman, 1954.

"Hypertensive-renal disease. The obstetrician is concerned with three forms of hypertension evidenced in pregnancy: preeclamptic toxemia, essential hypertension without evidence of renal involvement, and essential hypertension with evidence of renal involvement. It is rare for preeclampsia to necessitate therapeutic abortion, since it is notably a disease of the last trimester of pregnancy. In the exceptional case, the disease may be so severe at the 24th week, or even earlier, as to necessitate the interruption of pregnancy before viability. Not an insignificant proportion of these early cases of preeclampsia are associated with hydatidiform mole. Essential hypertension without renal involvement does not necessitate therapeutic abortion. Four out of every five such patients, when given good care, go through pregnancy satisfactorily with little additional rise of blood pressure. One patient in five will have a superimposed preeclampsia, but this does not usually occur until the 32nd or 33rd week; if pregnancy has to be interrupted then, the child is viable.

"On the other hand, cases of essential hypertension with evidence of renal impairment and associated vascular eyeground damage do badly

²⁵ Russell, *supra* note 13, at 110.

²⁶ Heffernan and Lynch, *supra* note 23, at 20.

²⁷ Eastman, *Obstetrical Foreword*, in Rosen, *op. cit.* *supra* note 14, at xix.

during pregnancy. The fetal salvage in such cases is poor: Many have an unexplained death in utero during the middle or later period of gestation, while others develop abruption of the placenta in the last trimester. In addition, this third form of pregnancy toxemia, hypertensive-renal disease[,] is aggravated by pregnancy and, if not interrupted early, patients are frequently much worse after delivery. Unless they insist on taking an extraordinary risk, interruption of pregnancy is not only warranted, but necessary."²⁸ Guttmacher, 1954.

"Patients with fixed hypertension sometimes present complications due to a superimposed toxemia of pregnancy which is an imminent threat to the mother's life. This is considered as an indication for the interruption of pregnancy."²⁹ Donnelly, 1955.

A study of 301 pregnancies of 218 hypertensives at Margaret Hague Maternity showed that two-thirds of them had no complicating preeclampsia and no TA, and no immediate maternal deaths. Among the other third, complicated by preeclampsia, there was a 7% maternal mortality. Half of the hospital's 8 TA were for hypertensive disease; 2 of the 4 died at once; one died of a cerebral hemorrhage after 6 years; the other (TA in 1931) subsequently had a normal full term baby in 1932, and thereafter an abortion and tubal ligation at another hospital, an ectopic pregnancy, and another normal birth, and in 1952, twenty-one years after the TA, she is still hypertensive, alive and well.

"We cannot expect to cure a patient of hypertension by abortion. The most we can do is to cure a patient of a superimposed preeclampsia by terminating pregnancy. Therefore, a hypertensive pregnancy should be allowed to continue until there is evidence of a superimposed toxemia of pregnancy. The pregnancy itself does not have a deleterious effect on hypertensive disease. Chesley, on a follow-up of 218 patients over a fourteen year period has shown that there is no increase in the annual death rate of those hypertensives who have had 4, 3 or 2 pregnancies over those who have had only one pregnancy. He concluded that repeated pregnancies in hypertensive women have not significantly increased their annual death rate. Therefore, we believe that if the patient has hypertensive disease she should be allowed to continue in pregnancy until there is a superimposition of preeclampsia—in other words until they develop proteinuria, edema, or a further rise in blood pressure."³⁰ Donnelly, 1955.

²⁸ A. F. Guttmacher, *supra* note 14, at 16-17.

²⁹ Donnelly, *supra* note 15, at 115.

³⁰ *Ibid.*

Hypertensive renal disease should be the most common indication, since few babies are ever salvaged and mothers are susceptible to serious complications, such as abruptio placentae.³¹ Greenhill, 1955.

Chronic hypertension. "If the systolic blood pressure is repeatedly over 200, if there is evidence of degenerative vascular change in the retinal vessels, and if renal function is considerably reduced, abortion should be considered."³² Willson, 1958.

Hypertensive cardiovascular disease. "Information regarding the effect of pregnancy on this disease is still in a state of confusion; however, much can be done for even the most severe cases with bed rest. A recent article by Taylor et al. covering a large group [4,432] seems to indicate that the fetal loss is not as severe as was originally thought."³³ Scherman, 1958.

Most of the work being done today is directed to some means of saving the child, with TA considered as of no demonstrated value to the mother. In 2,705 deliveries at Jackson Memorial Hospital, Miami, 204 mothers showed toxemias of pregnancy, including 22 chronic hypertension, 145 preeclampsia, 3 eclampsia, 3 renal disease. One mother died; fetal mortality was 6.88%. Treatment was with hypotensive drugs et cetera.³⁴ Novell & DeHaan, 1958.

Hypertensive vascular disease is very dangerous, inducing death in utero, abortions, premature deliveries and stillbirth. "After the fetus reaches a weight of 2500 gm., accordingly, it will be safer out of than in the uterus whenever preeclampsia develops or the hypertension increases or evidence of impairment of renal function is detected. As a consequence induction of labor or Caesarian section under local anesthesia frequently is indicated in the interest of the child. If preeclampsia or eclampsia are not superimposed on the hypertensive state, the risk to the mother is not greatly increased unless the condition has advanced sufficiently to cause cardiac and renal changes."³⁵ Beck & Rosenthal, 1958.

³¹ Greenhill, *Obstetrics* 329 (11th ed. 1955).

³² Willson, Beecham, Forman and Carrington, *op. cit. supra* note 21, at 165.

³³ Scherman, *supra* note 18, at 326.

³⁴ Novell and DeHaan, *Toxemia of Pregnancy: Treatment With Hypertensive Drugs and Relation to Anaphylaxis*, 12 *J. Obst. & Gynec.* 154-63 (1958).

³⁵ Beck and Rosenthal, *Obstetrical Practice* 700-01 (7th ed. 1958). For description of treatment of 331 cases of late toxemia with combination of hypertensive drugs, reducing mortality 50%, see Beck, *Lässt sich die kindliche Mortalität bei der Spätgestose durch die Behandlung mit blutdrucksenkenden Medikamenten verringern?*, 19 *Geburtshilfe und Frauenheilkunde* 407 (1959).

In Hypotensive drug therapy pregnancy should be terminated *as soon as fetus is viable*.³⁶ Dieckmann, 1958.

5. *Hyperemesis Gravidarum*

TA is recommended whenever hyperemesis gravidarum has persisted until the woman is emaciated and near starvation. But it usually stops of itself, improves under treatment.³⁷ Williams, 1903.

Therapeutic abortion is indicated by hyperemesis gravidarum and other forms of toxemia—a real but restricted indication.³⁸ DeLee, 1913.

This was a common indication for TA around 1922-1927.³⁹ Heffernan & Lynch, 1952.

Hyperemesis gravidarum is rarely an indication for TA.⁴⁰ Cova, 1932.

Pregnancy toxemias: hyperemesis. The reflex or neurotic type is seldom a real toxemia; mild and easily corrected. Toxic form: "The experience of all large clinics has been that, if the case is admitted early and glycogen balance restored promptly, no serious damage is done, and abortion will not ordinarily be indicated. . . . Furthermore, there is no doubt that a considerable number of cases are aborted that would not have required such radical measures, had they been placed in suitable institutions under the latest treatment for this condition." It usually occurs during the first half of pregnancy.⁴¹ Taussig, 1936.

Severe vomiting is an indication for TA.⁴² Williams, ed. Stander, 1941.

"Hyperemesis gravidarum, for which many abortions have been done in the past, rarely necessitates the termination of pregnancy today. The patient can be kept hydrated and fed intravenously and supplied with vitamins parenterally [*sic*] so that almost never is it necessary to terminate the pregnancy. In some cases in which the psyche plays an important role, the psychiatrist may persuade the patient to cease vomiting."⁴³ Te Linde, 1946.

³⁶ See Dieckmann and Harrod, Evaluation of Hypotensive Drug Therapy in Chronic Hypertensive Disease in Pregnancy, 76 Am. J. Obst. & Gynec. 374 (1958).

³⁷ Williams, Obstetrics, 460-62 (1st ed. 1903).

³⁸ DeLee, Principles and Practice of Obstetrics 1018 (1st ed. 1913).

³⁹ Heffernan and Lynch, Is Therapeutic Abortion Scientifically Justified?, 19 Linacre Q. 11 (1952).

⁴⁰ Cova, as reported in 98 J.A.M.A. 1393 (1932).

⁴¹ Taussig, Abortion, Spontaneous and Induced: Medical and Social Aspects 285-86 (1936).

⁴² Williams, Obstetrics 1113 (8th ed. Stander 1941).

⁴³ Te Linde, Operative Gynecology 478 (1946).

"Hyperemesis gravidarum is a rare indication for abortion. When there is evidence of hepatic and renal involvement, one should not wait too long before emptying the uterus."⁴⁴ DeLee, ed. Greenhill, 1951.

The degree of hyperemesis gravidarum can make it dangerous. Most cases are due to neurological protest, others to toxemia; the third stage brings delirium, cyanosis, death. "During all this disturbance, local and general, the fetus is usually alive, and if delivered at term may be large and fat. The vomiting often ceases on the death of the fetus." Treatment is psychological and by feeding. If loss of weight reaches 20 pounds, or there is persistent jaundice et cetera or psychosis, TA is indicated.⁴⁵ DeLee, ed. Greenhill, 1951.

Nine of the total 295 TA at Los Angeles County Hospital from 1931 to 1950 were for hyperemesis gravidarum. All were done during the period 1931-1937. Since then it has been uniformly overcome with Dramamine or Thiamine.⁴⁶ Russell, 1953.

"Therapeutic abortion for hyperemesis gravidarum has undergone a spectacular decline, so much so that it is today an almost forgotten procedure. Here again there has been no overt policy to force these women to continue through pregnancy, and certainly there is no evidence that the slightest hazard has been imposed upon them by this curtailment of operative interference. The fact is that obstetricians in current practice rarely see severe cases of hyperemesis gravidarum. Life-threatening examples of this disorder are simply not developing as they did a few years ago; and the issue of therapeutic abortion rarely comes up. For instance, during the past fifteen years in our clinic [Johns Hopkins], in the course of some 30,000 pregnancies followed, not a single interruption has been performed on this indication; but even more amazing is the fact that in only one or two instances was the process worrisome enough to suggest even consideration of interference. This is a curious and dramatic change; and in view of the fact that hyperemesis is largely a psychosomatic disorder, it is a change that bespeaks a wholesome and welcome alteration in present day attitudes of young women towards childbearing."⁴⁷ Eastman, 1954.

"Vomiting of pregnancy, hyperemesis gravidarum, rarely requires

⁴⁴ DeLee, Principles and Practice of Obstetrics 796-97 (10th ed. Greenhill 1951).

⁴⁵ Id. at 336-37.

⁴⁶ Russell, Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital, 151 J.A.M.A. 108, 110 (1953).

⁴⁷ Eastman, Obstetrical Foreword, in Rosen, Therapeutical Abortion xx (1954).

therapeutic abortion today. Before it was known that the liver necrosis associated with it was due to starvation, avitaminosis and dehydration, therapeutic abortion was often a life-saving measure. However, in two hospitals with which I have been closely associated for many years, only one abortion has been done for hyperemesis since 1937. During the 15 year period there were approximately 75,000 deliveries. The patient with hyperemesis is rarely seen nowadays who does not react favorably to hospitalization, intravenous fluids, parenteral vitamins, tube feeding and suggestive therapy, and who therefore has to be aborted."⁴⁸ Guttmacher, 1954.

With the advent of antibiotic and hormonal therapy, hyperemesis gravidarum—or rather the pathophysiology underlying it—is now seldom to be considered a medical indication for the interruption of pregnancy.⁴⁹ Rosen, 1954.

Through 1955, there had been only one TA at Margaret Hague Hospital for hyperemesis gravidarum; this occurred in 1939. In 1941 the same woman in the same condition was treated medically instead. She had a full term baby, with no impairment of her health. The hospital then withdrew its recognition of hyperemesis as an indication for TA. The hospital has never had a death from hyperemesis gravidarum since the time of its last (and only) TA for this cause in 1939.⁵⁰ Donnelly, 1955.

"Hyperemesis gravidarum is now an extremely rare indication for terminating gestation, because nearly always it can be prevented or cured by medication and supportive therapy."⁵¹ Greenhill, 1955.

All of 360 cases of emesis in pregnant women were found due to neurosis and treated medically. Only 5.55% required TA. The stages were described as: (1) reflex changes; neurosis; (2) initial disturbance of nutrition and metabolism; toxemia; (3) profound disturbance of nutrition and metabolism; dystrophy.⁵² Lebedev, 1957.

Hyperemesis in almost every case is due to personality defects. Treatment, largely psychological, is discussed with no suggestion that TA be

⁴⁸ A. F. Guttmacher, *The Shrinking Non-Psychiatric Indications for Therapeutic Abortion*, in Rosen, *id.* at 17.

⁴⁹ Rosen, *The Emotionally Sick Pregnant Patient: Psychiatric Indications and Contraindications to the Interruption of Pregnancy*, in Rosen, *id.* at 242.

⁵⁰ Donnelly, *Are There Medical Indications for Therapeutic Abortions?*, 52 *J. Med. Soc. N.J.* 112, 113 (1955).

⁵¹ Greenhill, *Obstetrics* 329 (11th ed. 1955).

⁵² Lebedev, *On Vomiting in Pregnancy*, Pirogov 2d Med. Inst. (Moscow) (1957).

considered. Treatment is usually successful.⁵³ Beck & Rosenthal, 1958. Hyperemesis not even discussed as an indication in Willson, 1958.⁵⁴

6. Cancer and Other Neoplasms

"It is licit to excise a diseased uterus which is gravely dangerous, even though the operation will indirectly kill the fetus which is enclosed in the womb If . . . the fetus is near viability and an immediate hysterectomy would only *probably*, and not *certainly*, diminish the danger of death to the mother, the operation would be illicit."⁵⁵ Suppose one 4 months pregnant has an ovarian tumor which her physician is convinced must be excised at once to save her life, but the operation may cause an abortion. "The physician may remove the ovarian tumor."⁵⁶ Healy, 1956.

Cancers were a common indication for TA around 1922-1927.⁵⁷

Taussig states in 1936 that neither myoma nor cervical cancer is ever an indication in itself for TA, and the patient should be treated just as if she were not pregnant. Ovarian dermoid requires TA because of danger of infection; a fibroid low on uterus requires TA because it would interfere with delivery; and TA is indicated for certain ovarian cysts because of the possibility of postpartum difficulties.⁵⁸

Ten years later, however, Te Linde maintained that: "Myomata [muscular tumors], because of their size and position, may make the course of pregnancy dangerous; therefore they may call for abortion. . . . Cancer of the cervix, cancer of the ovary and cancer of the breast discovered during early pregnancy should be treated without attempting to save the fetus"⁵⁹

Three of the 295 TA at Los Angeles County Hospital, 1931-1950, were for breast carcinoma—none since 1937; 1 for cervical carcinoma, in 1940; and 1 for sarcoma of the uterus in 1933.⁶⁰ Russell, 1953.

In 1954 Dr. Guttmacher wrote: "Malignancy is increasing in importance as an indication for abortion. If a recent operation for proved

⁵³ Beck and Rosenthal, *Obstetrical Practice* 641-48 (7th ed. 1958).

⁵⁴ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* (1958).

⁵⁵ Healy, *Medical Ethics* 214-15 (1956).

⁵⁶ *Id.* at 232-33.

⁵⁷ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 *Linacre Q.* 11 (1952).

⁵⁸ Taussig, *Abortion, Spontaneous and Induced: Medical and Social Aspects* 292 (1936).

⁵⁹ Te Linde, *Operative Gynecology* 479 (1946).

⁶⁰ Russell, *supra* note 46, at 110.

carcinoma of the breast has been performed, termination of pregnancy is thought mandatory. After a 'five-year cure period' the woman who is extremely anxious for a child is sometimes allowed to go through pregnancy. When breast carcinoma is discovered during pregnancy, most authorities advise immediate breast amputation followed by evacuation of the pregnancy. However, some will allow a pregnancy approaching viability to continue.

"Thyroid malignancies also contraindicate continuation of pregnancy. Carcinoma of the cervix discovered during pregnancy is ordinarily treated locally with radium, and the pregnancy allowed to continue. Delivery by Cesarean section than becomes necessary."⁶¹

During the 10 years from 1945 to 1954 at the Mayo Clinic, 8 of the 64 TA done were for breast carcinoma. In a report by two staff members we find this comment: "Probably the best evidence that pregnancy may have a relatively unimportant effect on mammary carcinoma is Westberg's comparison of 224 pregnant and nursing women who had mammary carcinoma with a control group of 300 nonpregnant women with carcinoma of the breast. He concluded as follows: 'Nothing has been found to bear out the opinion that induced abortion should improve the prognosis. Nor does the prognosis seem to be dependent on the fact whether or not the patient nurses her offspring. It would thus seem that the pregnancy has no very great effect on the prognosis of breast cancer apart from the fact that the patients delay in consulting a doctor and that the doctor is inclined to postpone the surgery.'"⁶² Nelson & Hunter, 1957.

Five of the 64 TA at Mayo were for lymphoma. Of these the same authors say: "Two of the 5 were dead within six months. Therapeutic abortion is not justified in most cases of this type, but is in a few instances."⁶³ Nelson & Hunter, 1957.

"With carcinoma of the uterus, ovaries, or lower bowel it often is necessary to remove the pregnant uterus as part of the treatment of the tumor. In some patients with cancer of the rectum or rectosigmoid, adequate removal is possible without disturbing the gravid uterus."⁶⁴ Willson, 1958.

"Pelvic tumor was at one time considered an indication for therapeutic

⁶¹ A. F. Guttmacher, *supra* note 48, at 18.

⁶² Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 *Obst. & Gynec.* 284, 288 (1957).

⁶³ *Id.* at 289.

⁶⁴ Willson, Beecham, Forman and Carrington, *op. cit.* *supra* note 54, at 165.

abortion. Now recourse is had instead to surgical removal or Caesarean section."⁶⁵ Beck & Rosenthal, 1958.

There still has never been a TA for any cancer at Margaret Hague Maternity Hospital. Patients are given the same treatment as if they were not pregnant.⁶⁶ Donnelly, 1955.

7. *Toxemias of Pregnancy*

"The hypertensive type of toxemia constitutes the largest group requiring interruption. Since this type occurs most often in grand multiparae, the interruption is not as serious a calamity to the patient as when interruption becomes necessary in younger women with few or no children. It seems *reasonable also to permit the multiparity to bolster the indications* for abortions in this group."⁶⁷ Te Linde, 1946.

"The toxemias of pregnancy are in themselves on the decline in most parts of the United States because of the increased availability of antepartum care and the early treatment of the first signs of the disorder. Naturally a fall in the incidence of therapeutic abortion for this indication has followed."⁶⁸ Perlmutter, 1947.

At Mayo Clinic: "It appears significant that approximately two-thirds of the abortions for toxemia were done in the period representing the first half of this study (1945-1949), which indicates improving control and understanding of toxemia."⁶⁹ Nelson & Hunter, 1957. (Eleven TA [17%] for toxemia at Mayo, 1945-1954.)

Treatment of 331 cases of late toxemia with combination of hypertensive drugs reduced mortality by 50%.⁷⁰ Beck, 1959.

Of 2,705 deliveries at Jackson Memorial Hospital, Miami, 204 (7.5%) showed some toxemia of pregnancy, including 145 preeclampsia, 3 eclampsia, 22 chronic hypertension, 3 renal disease, others 3. Infant mortality was 6.88%, but only 1 mother died.⁷¹ Novell & DeHaan, 1958.

⁶⁵ Beck and Rosenthal, op. cit. supra note 53, at 916.

⁶⁶ Donnelly, Are There Medical Indications for Therapeutic Abortions?, 52 J. Med. Soc. N.J. 112, 114 (1955).

⁶⁷ Te Linde, op. cit. supra note 59, at 478. (Emphasis added.)

⁶⁸ Perlmutter, Analysis of Therapeutic Abortions, Bellevue Hospital 1935-1945, 53 Am. J. Obst. & Gynec. 1008, 1014 (1947).

⁶⁹ Nelson and Hunter, supra note 62, at 286.

⁷⁰ Beck, Lässt sich die kindliche Mortalität bei der Spätgestose durch die Behandlung mit blutdrucksenkenden Medikamenten verringern?, 19 Geburtshilfe und Frauenheilkunde 407, 413 (1959).

⁷¹ Novell and DeHaan, Toxemia of Pregnancy: Treatment With Hypertensive Drugs and Relation to Anaphylaxis, 12 Obst. & Gynec. 154, 155-59 (1958).

8. *Anemia*

A finding of anemia suggested a general weakness and inability to sustain any unusual burden. Pregnancy was considered such an unusual burden, and so it was thought that pregnancy and anemia were incompatible, and that removing this extra burden would substantially improve the patient's prognosis. On this theory, with no real clinical evidence to support it, anemia was for some time, by some obstetricians, taken as an indication for TA.

Heffernan and Lynch report that anemias were a common indication for TA around 1922-1927.⁷²

And the Stander edition of Williams in 1941 would still advise occasional TA for pernicious anemia.⁷³

Pernicious anemia, on which the Germans have done so much work, is probably the most deadly of the anemias. The question, however, is whether pregnancy makes it worse or whether an abortion will bring improvement.

Hypochronic anemias are the most frequent ones in pregnancy. They appear about mid-term, with fatigue and loss of euphoria (sense of well-being); the symptoms disappear with the termination of pregnancy. The proper treatment is medical.⁷⁴ Osler, ed. Christian, 1944.

Sickle-cell anemia is rather frequent among Negroes only.⁷⁵ Osler, ed. Christian, 1944.

It responds poorly to surgery. It is not influenced by pregnancy.⁷⁶ Heffernan & Lynch, 1952.

9. *Asthma*

One of the 295 TA at Los Angeles County Hospital, 1931-1950, was done for asthma. That was in 1936, and there have been none since.⁷⁷ Russell, 1953.

A more recent textbook on Obstetrics declares that bronchial asthma

⁷² Heffernan and Lynch, *supra* note 57, at 11.

⁷³ Williams, *Obstetrics* 1116 (8th ed. Stander 1941).

⁷⁴ Osler, *The Principles and Practice of Medicine* 948 (15th ed. Christian 1944).

⁷⁵ *Id.* at 944; Giorlando, Brandt and de Guzman, *Sickle Cell Anemia in Pregnancy*, 67 *West. J. Surg., Obst. & Gynec.* 253 (1959).

⁷⁶ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 *Linacre Q.* 11, 21 (1952).

⁷⁷ Russell, *Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital*, 151 *J.A.M.A.* 108, 110 (1953).

is usually *relieved* by pregnancy; occasionally aggravated. Therapy is discussed with no suggestion of TA in any case.⁷⁸ Beck & Rosenthal, 1958.

10. Chorea

St. Vitus' Dance and other nervous ailments (often hereditary) were a common indication for TA around 1922-1927.⁷⁹

Chorea usually permits going full term without danger to the mother.⁸⁰ Cova, 1932.

Toxic chorea occurring for the first time in pregnancy is fatal to 17%. It usually requires TA, *although that gives relief to but a small percentage*. It usually appears during the first half of pregnancy. Chorea recurrent from childhood is usually not a serious complication, and rarely calls for TA.⁸¹ Taussig, 1936.

Chorea occasionally taken as an indication for TA.⁸² Williams, ed. Stander, 1941.

"A choreic patient may become pregnant; more frequently the disease occurs during pregnancy, sometimes after delivery. . . . [TA] should not be done as a rule."⁸³ Osler, ed. Christian, 1944.

Indications for TA include some neurologic disorders such as Huntington's chorea.⁸⁴ DeLee, ed. Greenhill, 1951.

Chorea is to be treated by rest and medicines. "Abortion is not to be considered in the mild cases and is of questionable value in the severe ones. The latter not only are not improved, but often rapidly progress to a fatal termination after the pregnancy is interrupted."⁸⁵ Beck & Rosenthal, 1958.

11. Diabetes

Diabetes was a common indication around 1922-1927.⁸⁶

Occasionally its presence requires TA.⁸⁷ Williams, ed. Stander, 1941.

"Diabetes. Ordinarily a diabetic patient does not require therapeutic abortion. The juvenile diabetic of long standing who shows marked

⁷⁸ Beck and Rosenthal, *Obstetrical Practice* 683-84 (7th ed. 1958).

⁷⁹ Heffernan and Lynch, *supra* note 76, at 11.

⁸⁰ Cova, as reported in 98 J.A.M.A. 1393 (1932).

⁸¹ Taussig, *Abortion, Spontaneous and Induced: Medical and Social Aspects* 287-88 (1936).

⁸² Williams, *op. cit.* *supra* note 73, at 1116.

⁸³ Osler, *op. cit.* *supra* note 74, at 107.

⁸⁴ DeLee, *Principles and Practice of Obstetrics* 797 (10th ed. Greenhill 1951).

⁸⁵ Beck and Rosenthal, *op. cit.* *supra* note 78, at 729.

⁸⁶ Heffernan and Lynch, *supra* note 76, at 11.

⁸⁷ Williams, *op. cit.* *supra* note 73, at 1116.

vascular pathology with ocular and renal involvement, may be the exception. Diabetics without extensive vascular damage are rarely made worse by pregnancy and delivery."⁸⁸ Guttmacher, 1954.

"Diabetes—Pregnancy should often be terminated if there are advanced vascular degenerative changes or severe hypertension. This is particularly true if toxemia has developed in other pregnancies."⁸⁹ Willson, 1958.

The indication set up by Guttmacher and Willson is actually not based on diabetes but on conditions of hypertension, toxemia et cetera ascribed to it.

Diabetes used to be regarded as a definite indication for abortion. Now, with the proper use of insulin and diet, TA in the interest of the mother "no longer is considered. Because the fetus tends to become excessive in size, and often dies *in utero*, pregnancy may be interrupted *before term in the interest of the child*."⁹⁰ Beck & Rosenthal, 1958.

Improvement in handling diabetics is giving more fetal salvage at Providence Lying-In Hospital. Over 31-year period the loss was 28%; more recently 25%.⁹¹ Jones, 1958.

Insulin made pregnancy safe for the mother, but for a long time the fetal loss was 40%. Now, with care and an early Caesarean, the loss is brought down to 20%.⁹² Dunlop, 1958.

In 81 deliveries, only one of 58 diabetic mothers was lost. She had come to the clinic only once, in her 30th week, and took no treatment. She returned when already in labor, in diabetic coma, had a stillbirth, and died. If diabetes is controlled, there is no appreciable danger to the fetus before the 36th week, and slightly premature labor induced.⁹³ Garnet, 1960.

12. Eclampsia

No therapeutic abortion on account of eclampsia; *accouchement forcé* (a premature birth) if condition of cervix permits.⁹⁴ Williams, 1903.

Eclampsia usually develops quite late; seldom suggests TA.⁹⁵ Taussig, 1936.

⁸⁸ A. F. Guttmacher, *The Shrinking Non-Psychiatric Indications for Therapeutic Abortion*, in Rosen, *Therapeutic Abortion* 18 (1954).

⁸⁹ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* 165 (1958).

⁹⁰ Beck and Rosenthal, *op. cit. supra* note 78, at 916. (Emphasis added.)

⁹¹ Jones, *Management of the Pregnant Diabetic*, 7 *Diabetes* 439 (1958).

⁹² Dunlop, Davidson and Alstead, *Textbook of Medical Treatment* 313 (7th ed. 1958).

⁹³ Garnet, *Pregnancy Complicated by Diabetes*, 79 *Am. J. Obst. & Gynec.* 140-47 (1960).

⁹⁴ Williams, *Obstetrics* 343 (1st ed. 1903).

⁹⁵ Taussig, *op. cit. supra* note 81, at 302.

"Severe preeclampsics and eclampsics usually occur late in pregnancy, and when interruption becomes necessary, it often occurs after the fetus is viable."⁹⁶ Te Linde, 1946.

Eclampsia involves convulsions, edema, hypertension et cetera. In American hospitals maternal mortality is about 13%, fetal mortality 40%. Its cause is still debated. It is *never an indication for TA*.⁹⁷ DeLee, ed. Greenhill, 1951.

No reference to TA because of eclampsia in Donnelly, Heffernan and Lynch, Russell, Scherman or Willson.

Two thirds of eclampsia cases occur during the last 2 months. In Denmark, in a 10-year survey of 737,701 deliveries, there were found 1,282 cases of eclampsia. "Labor occurs spontaneously and progresses rapidly in a large percentage of the cases of antepartum eclampsia. While the condition often is aggravated during the process of delivery, improvement usually follows within a few hours after the birth of the child.

"Improvement also occurs when the fetus dies *in utero*, and it may follow treatment in many of the cases in which the fetus continues to live. . . . Sooner or later, however, the convulsions and other manifestations of eclampsia recur, unless the fetus dies or the pregnancy is spontaneously or artificially terminated."⁹⁸ Beck & Rosenthal, 1958.

13. *Ectopic Pregnancy*

"[I]f the tube is at present in a gravely dangerous condition and if its excision cannot be delayed without a notable increase of danger to the mother, this Fallopian tube may be removed at once."⁹⁹ Healy, 1956.

"If an ectopic pregnancy is clinging to an ovary or to the woman's viscera, may the surgeon remove it? . . . If at present the condition of the organ is actually pathological and if it is a grave threat to the mother's life, that part of her body may licitly be removed in order to preserve the rest of the body."¹⁰⁰ ("That part of her body" refers to the ovary or viscera, not to the fetus.) Healy, 1956.

"Thus, the possible terminations of tubal pregnancy are as follows:
1. Tubal abortion (4 to 6 weeks); 2. Tubal rupture (2 to 4 weeks);
3. Secondary abdominal pregnancy (may go to term); 4. Intraliga-

⁹⁶ Te Linde, *Operative Gynecology* 478 (1946).

⁹⁷ DeLee, *op. cit.* supra note 84, at 349-57.

⁹⁸ Beck and Rosenthal, *Obstetrical Practice* 659, 661-62 (7th ed. 1958).

⁹⁹ Healy, *Medical Ethics* 222 (1956).

¹⁰⁰ *Id.* at 266.

mentary (rare); 5. Spontaneous regression. . . . The treatment for tubal pregnancy consists of surgical removal of the involved tube and the replacement of the blood lost as a result of the lesion. The patient with ruptured tubal pregnancy and massive intraperitoneal hemorrhage must be operated upon as soon as she can be transported to the hospital and the operating room can be prepared. . . . The treatment of abdominal pregnancy is prompt operation with removal of the fetus. Because the procedure usually is accompanied by excessive bleeding . . . [blood supply must be provided]."¹ Willson, 1958.

Apparently there should be little difficulty in Catholic and non-Catholic medics working in harmony on tubal pregnancies which have not become abdominal. But that harmony does not extend to abdominal pregnancies, particularly as it is the abdominal which have a fair chance of going full term to delivery. A news service last July reported an abdominal pregnancy going full term to birth of a healthy infant in Des Moines.² Some keen medical minds, however, have of late been challenging the pessimistic attitude toward tubal pregnancies, now becoming very frequent, and it may be that both moralist and obstetrician will have to give ground.

"It is for physicians accurately to present the facts to the moralist. He depends on them for medical information. Given the medical information necessary, he will then apply the ethical principles to the case"³ Healy, 1956.

14. *Epilepsy*

Epilepsy is an occasional indication for TA.⁴ Williams, ed. Stander, 1941.

The proper treatment for epilepsy in pregnancy is dietetic and medicinal.⁵ Osler, ed. Christian, 1944.

Of the 295 TA at Los Angeles County Hospital 1931-1950, 4 were for

¹ Willson, Beecham, Forman and Carrington, op. cit. supra note 89, at 172-76.

² Assoc. Press Release, July 19, 1960, as reported in *The Chicago American*, dateline Des Moines.

³ Healy, op. cit. supra note 99, at 226. For recent work in this field see: F. Grosjean, *Chirurgie conservatrice dans grossesse extrauterine* (1956) (thesis); Jerold M. Rosenblum et al., *Treatment of Tubal Pregnancy*, 80 *Am. J. Obst. & Gynec.* 274 (1960); Vladimir Škulj, *Significance of Tubal Pregnancy in the Reproductive Life of Women*, 80 *Am. J. Obst. & Gynec.* 278 (1960).

⁴ Williams, *Obstetrics* 575 (8th ed. Stander 1941).

⁵ Osler, *The Principles and Practice of Medicine* 1368 (15th ed. Christian 1944).

epilepsy, but none have been done on account of epilepsy since 1942.⁶ Russell, 1953.

15. *Hydatidiform Mole*

Hydatidiform mole sometimes requires TA regardless of the stage of pregnancy.⁷ Williams, 1903.

This disease is an indication for TA.⁸ DeLee, 1913.

It nearly always means a dead fetus.⁹ Taussig, 1936.

"Diseases of the ovum, such as hydatidiform mole" indicate TA.¹⁰ DeLee, ed. Greenhill, 1951.

"A fully developed or typical hydatidiform mole is an uncommon entity, occurring about once in 2,000 deliveries. Hertig feels that this does not represent a true incidence figure"¹¹ Willson, 1958.

A statistical survey showed 363 cases in 748,626 pregnancies. Of 55 cases only one had any embryo at all; generally there was no blood supply. The occasional normal fetus in a hydatidiform mole case is always a separate entity, meaning a twin pregnancy, with one placenta normal.¹² "The embryo is usually absent or dead when the diagnosis of Hydatidiform Mole is made. One should have no scruples about emptying the uterus, accordingly, whenever this condition is recognized."¹³ Beck & Rosenthal, 1958.

When this condition occurs, empty uterus completely and watch patient for at least one year. "The hazards of hemorrhage and perforation by curettage of the uterus are quite great and therefore no evacuation of the uterus should be attempted without ample blood on hand." Ten times as frequent in the Philippines, Japan and China as in the United States.¹⁴ Buxton, 1959.

⁶ Russell, Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital, 151 J.A.M.A. 108, 110-11 (1953).

⁷ Williams, op. cit. supra note 94, at 488-89.

⁸ DeLee, Principles and Practice of Obstetrics 1018 (1st ed. 1913).

⁹ Taussig, Abortion, Spontaneous and Induced: Medical and Social Aspects 268 (1936).

¹⁰ DeLee, Principles and Practice of Obstetrics 977 (10th ed. Greenhill 1951).

¹¹ Willson, Beecham, Forman and Carrington, Obstetrics and Gynecology 178 (1958).

¹² Beck and Rosenthal, op. cit. supra note 98, at 568.

¹³ Id. at 915.

¹⁴ Buxton, Management of Patients With Hydatidiform Mole, 80 Ann. N.Y. Acad. Sci. 121-24 (1959).

16. *Leukemia*

Leukemia is an occasional indication for TA.¹⁵ Williams, ed. Stander, 1941.

In *acute* leukemia, 50% of fetuses die, and all mothers die within months after delivery; *but it works just as rapidly in the nonpregnant*. In *chronic* leukemia 75% of the infants survive, and two-thirds of the mothers survive more than a year after delivery. "Because pregnancy has little or no effect on the life expectancy of women afflicted with either acute or chronic leukemia, therapeutic abortion is not justifiable and premature interruption of pregnancy is not indicated, except to save the child when mother is moribund."¹⁶ Beck & Rosenthal, 1958.

There is no evidence that TA has any effect on leukemia. The placenta provides an absolute protection for the fetus.¹⁷ Flint, 1959.

17. *Liver*

No liver disease is listed as an indication for TA in Williams, 1903, or in DeLee, 1913.

Icterus, acute yellow atrophy of the liver, usually found in the first half of pregnancy, calls for TA.¹⁸ Taussig, 1936.

Infectious hepatitis requires nourishment et cetera, not TA.¹⁹ DeLee, ed. Greenhill, 1951.

Infectious hepatitis: "Therapeutic interruption of pregnancy should be discouraged in the interests of both the mother and the baby."²⁰ Greenhill, 1955.

Infectious hepatitis is characterized by progressive deterioration. Fetus frequently dies; may be expelled prematurely before death of the mother; but it does not inherit the disease.²¹ Beck & Rosenthal, 1958.

There is no obstetrical complication directly attributable to epidemic hepatitis. Pregnancy caused no increase in morbidity. Susceptibility of mother is not related to her parity. It does more harm to the fetus in the first trimester but is harder on the mother in the later months; pre-

¹⁵ Williams, op. cit. supra note 4, at 1123.

¹⁶ Beck and Rosenthal, *Obstetrical Practice* 692 (7th ed. 1958).

¹⁷ Flint, *Leukemia and Pregnancy*, 56 *Rocky Mt. Med. J.* 59 (July-Sept. 1959).

¹⁸ Taussig, op. cit. supra note 9, at 288.

¹⁹ DeLee, op. cit. supra note 10, at 339.

²⁰ Greenhill, *Obstetrics* 371 (11th ed. 1955).

²¹ Beck and Rosenthal, op. cit. supra note 16, at 709.

mature delivery seemed to increase the danger to the mother.²² Peretz, 1959.

18. *Nervous System: Myasthenia Gravis; Multiple Sclerosis*

Two disorders of the nervous system have been taken many times as indications for TA. One, myasthenia gravis, is a syndrome of fatigue and progressive paralysis, especially of the muscles of the neck and face, with no sensory disturbance and no atrophy of any part. It is caused by a *functional* defect interfering with transmission of nerve impulses. The patient alternates between remissions and relapses. The other, multiple sclerosis, is an organic disease, marked by sclerotic patches here and there in the brain and spinal cord. It produces weakness, loss of coordination, convulsive jerky movements and mental symptoms. Its cause is not finally determined. The prognosis is always gloomy: it may go on for years, with remissions and relapses, but is progressive overall and incurable.

Myasthenia gravis was called a common indication for TA around 1922-1927.²³

A standard textbook declared that the proper treatment is rest and medication. "Fewer things are more dramatic than the recovery of muscle power following injection of prostigmine."²⁴ Osler, ed. Christian, 1941.

In 1942 it was said that while TA was "frequently taken to be indicated" in myasthenia gravis the abortion was not necessary or advisable so long as the patient could be kept under prostigmine control.²⁵ Viets, 1942.

The effort to establish multiple sclerosis as an indication came later. "The two commonest neurologic indications for therapeutic abortion in most reports appear to be multiple sclerosis and epilepsy, both of which indications are controversial. Because of some German literature of many years ago, there has been a trend to interrupt all pregnancies in women who have multiple sclerosis. However, most physicians today

²² Peretz, Paldi, Brandstaedter and Barzilai, Infectious Hepatitis in Pregnancy, 14 Obst. & Gynec. 435, 436-37 (1959).

²³ Heffernan and Lynch, Is Therapeutic Abortion Scientifically Justified?, 19 Linacre Q. 11, 18 (1952).

²⁴ Osler, The Principles and Practice of Medicine 1191 (15th ed. Christian 1944).

²⁵ Viets, Schwab and Brazier, The Effect of Pregnancy on the Course of Myasthenia Gravis, 119 J.A.M.A. 236, 241-42 (1942).

favor a middle-of-the-road approach" One-third of all neurologic TA at Mayo were for multiple sclerosis.²⁶ Nelson & Hunter, 1957.

In the 1951 edition of DeLee-Greenhill it was stated that "nervous diseases such as multiple sclerosis" were rarely to be taken as indications for TA.²⁷

In 1952 Heffernan and Lynch declared that there was no evidence that either pregnancy or its termination had any effect on multiple sclerosis, good or bad.²⁸

One of the studies rejecting the German theory was that of Sweeney, 1953.²⁹

Donnelly, in reporting that there had never been a TA at Margaret Hague Hospital on this indication, said that it had been introduced solely on the authority of an article by Van Hoesselin in a German periodical of 1904, and that the recommendation of TA in that article was based on observation of only 4 cases. Subsequent American studies on a more adequate scale had not supported Van Hoesselin.³⁰ Donnelly, 1955.

The 1958 edition of Beck and Rosenthal cites Sweeney in saying that "the former opinion that multiple sclerosis is an indication for abortion is open to question."³¹

19. Preeclampsia

Preeclampsia seems to be a sort of end product peculiar to pregnancy, a vicious combination of disorders threatening the mother ordinarily after the fetus has become viable.

Preeclampsia sometimes calls for TA.³² Williams, ed. Stander, 1941.

Preeclampsia usually occurs during the *last 3 months*. There is toxemia with violent effects. "The toxemia may affect the child *in utero* and result in spontaneous expulsion of a premature, stillborn baby." To be treated by prophylaxis. If not controlled, *induce delivery of live child*.³³ DeLee, ed. Greenhill, 1951.

²⁶ Nelson and Hunter, Therapeutic Abortion: A Ten-Year Experience, 9 Obst. & Gynec. 284, 288 (1957).

²⁷ DeLee, Principles and Practice of Obstetrics 977 (10th ed. Greenhill 1951).

²⁸ Heffernan and Lynch, *supra* note 23, at 19-20.

²⁹ Sweeney, Pregnancy and Multiple Sclerosis, 66 Am. J. Obst. & Gynec. 124-29 (1953).

³⁰ Donnelly, Are There Medical Indications for Therapeutic Abortions?, 52 J. Med. Soc. N.J. 112, 114 (1955).

³¹ Obstetrical Practice 730 (7th ed.).

³² Williams, Obstetrics 1115 (8th ed. Stander 1941).

³³ DeLee, *op. cit.* *supra* note 27, at 341-43.

No reference to TA for preeclampsia was found in Donnelly, Heffernan and Lynch, Russell, Scherman or Willson.

Commonly treated only as an involvement or result of hypertension or toxemias. "It is rare for preeclampsia to necessitate therapeutic abortion, since it is notably a disease of the last trimester of pregnancy. In the exceptional case, the disease may be so severe at the 24th week, or even earlier, as to necessitate interruption of pregnancy before viability. Not an insignificant proportion of these early cases of preeclampsia are associated with hydatidiform mole."³⁴ Guttmacher, 1954.

"A sudden, pronounced rise in blood pressure, a marked increase in the proteinuria or the observation of greater edema of the fingers and face, indicate the necessity for the interruption of pregnancy. . . . Because the fetus frequently dies in severe preeclampsia, it usually is unwise to postpone the interruption in the interest of the child. If the fetus is not too premature it will have a better chance for survival out of, than in the uterus."³⁵ Beck & Rosenthal, 1958.

A New Zealand team reported on the handling of 169 pregnancies with preeclamptic toxemia. There had been no TA, and the whole effort had been made to determine the optimum date for the delivery of viable infants.³⁶ Carey & Liley, 1959.

20. *Thyroid*

Baselow's Disease (toxic goiter) is an indication for TA, as a disease jeopardizing the mother.³⁷ DeLee, 1913.

Commonly taken as an indication for TA around 1922-1927.³⁸

Goiter is rarely an indication for TA.³⁹ Cova, 1932.

"Thyrotoxicosis can be treated medically or surgically during pregnancy as though no pregnancy existed; therefore abortion is not required."⁴⁰ Guttmacher, 1954.

Thyrotoxicosis "can no longer be considered an indication for therapeutic abortion. The disease is treated as in the nonpregnant state, even including the use of radioactive iodine [Golpitto, Trends in

³⁴ A. F. Guttmacher, The Shrinking Non-Psychiatric Indications for Therapeutic Abortion, in Rosen, Therapeutic Abortion 16 (1954).

³⁵ Beck and Rosenthal, Obstetrical Practice 657-58 (7th ed. 1958).

³⁶ Carey and Liley, The Assessment of the Risk of Intra-uterine Death in Pre-eclampsia, 58 N.Z. Med. J. 450 (1959).

³⁷ DeLee, Principles and Practice of Obstetrics 1018 (1st ed. 1913).

³⁸ Heffernan and Lynch, *supra* note 23, at 11.

³⁹ Cova, as reported in 98 J.A.M.A. 1393 (1932).

⁴⁰ A. F. Guttmacher, *supra* note 34, at 19.

Therapeutic Abortion (1954); Dailey and Benson, Hyperthyroidism in Pregnancy (1951)]."⁴¹ Scherman, 1958.

IV

A re-evaluation as to all of these complications of pregnancy is at first view encouraging. Yet as the incidence of recognized medical TA is reduced and effective medical treatment substituted, we find new indications of a wholly different sort being urged. Psychiatric indications had long been suggested without getting much attention. In recent years they have been widely invoked, but by obstetricians, rather than by psychiatrists. The judgment of the latter has been against induced abortion for psychotics and personalities which might easily become psychotic.

Psychiatric Indications

"The statistics presented show evidence of a very important trend in regard to therapeutic abortion. All major organic illnesses have shown a considerable decrease in frequency as indications. It shows, that, even in face of the serious complicating diseases, with competent care, disease and pregnancy are compatible in most instances.

"Only in the case of psychiatric indications has there been a failure to recognize this concept, and as a result there has been a continuous loss of fetal life due to this least severe of all indications. There has been a marked rise in psychiatric indications in the past few years."⁴² Scherman, 1958.

TA is not indicated for psychoses; they can usually go full term.⁴³ Cova, 1932.

"At the present time there is no indication for performing therapeutic abortion in psychopathy per se. . . . There exist very few, if any, psychiatrists who . . . would feel a therapeutic abortion is indicated in any of the psychoneurotic reaction types."⁴⁴ Ebaugh & Heuser, 1947.

If economic or social pressures, or bodily or mental disease, result in TA, then there follows a change back to hormonal levels, physiologic processes and emotions; then through psychosomatic processes, ideas of guilt and the like all "might well disturb a poorly integrated personality even to psychotic proportions."⁴⁵ Ebaugh & Heuser, 1947.

⁴¹ Scherman, Therapeutic Abortion, 11 Obst. & Gynec. 323, 330 (1958).

⁴² Id. at 333.

⁴³ Cova, as reported in 98 J.A.M.A. 1393, 1394 (1932).

⁴⁴ Ebaugh and Heuser, Psychiatric Aspects of Therapeutic Abortion, 2 Postgrad. Med. 325, 330-31 (1947).

⁴⁵ Id. at 327.

Recognized indications for TA: neurology and psychiatry. "The trend in the evaluation of these disorders as an indication for therapeutic abortion has swung from comparative liberalism to marked conservatism in the past twenty years. There does not seem to be any one condition in neurology or psychiatry which absolutely indicates interruption."⁴⁶ Perlmutter, 1947.

"By and large, obstetricians have performed therapeutic abortion on psychiatric indications begrudgingly. They have been inclined to regard the indications which their psychiatric colleagues bring to them as too esoteric and intangible to be convincing; and the thought has not infrequently crossed their minds that a clever, scheming woman is simply trying to hoodwink both psychiatrist and obstetrician. The present volume goes far towards correcting these misapprehensions on the part of obstetricians. Indeed, from the statements and case histories which psychiatrists present in this volume, it is clear that their opinion is veering rapidly toward greater conservatism. The guilt complex which sometimes follows artificially produced abortion receives especial emphasis. Author after author uses such phrases as 'the sense of guilt or inadequacy which appears directly related to an abortion', 'psychic "hangovers" from abortion', 'traumatic experience of an abortion', 'the effect of the termination on the integrity of the woman's personality structure', 'emotional trauma which the woman will subsequently experience', to say nothing of the stress laid on 'exceedingly depressed hysterectomized patients' and suicidal tendencies in vasectomized men. The feeling is growing apparently among the leaders in psychiatry that therapeutic abortion on psychiatric grounds is often a double edged sword and frequently carries with it a degree of emotional trauma far exceeding that which would have been sustained by continuation of pregnancy."⁴⁷ Eastman, 1954.

"Whether the abortion has been 'spontaneous' or 'therapeutic,' the potential mother thereby deprived of motherhood is likely to behave in a peculiar way. She will feel both relieved and deprived. Just how she behaves will depend on the degree to which she feels herself responsible for the abortion. . . . It may be said that those who commit or request abortion and those who suffer or endure abortion appear to have a similar post-abortion hangover. Whatever the differences in conscious or unconscious motivations for abortion, the experience of abortion in-

⁴⁶ Perlmutter, Analysis of Therapeutic Abortions, Bellevue Hospital 1935-1945, 53 Am. J. Obst. & Gynec. 1008, 1013-14 (1947).

⁴⁷ Eastman, Obstetrical Foreword, in Rosen, op. cit. supra note 34, at xx-xxi.

evitably arouses an unconscious sense of guilt. Patients who voluntarily, or involuntarily, have gone through this experience should be apprised of this fact and encouraged to talk about their feelings. As physicians come to understand and to apply this knowledge in their daily practice, more children will be born and more healthy children will grow."⁴⁸ Dunbar, 1954.

"The fact that no abortions have been done for neuropsychiatric reasons during the last two years at the University of Virginia Hospital means that a change of attitude has been successful in helping many people solve their problems in living, problems which seemed to be without solution at the time the case was presented. Neuropsychiatric disease is not necessarily an indication, since persons with serious reactions can be treated while pregnant by shock therapies as well as by psychotherapy. Readjustment of family attitudes frequently allays immediate panic and just as frequently makes the hated pregnancy become a cause for working out the elements behind family disunity."⁴⁹ Wilson, 1954.

In the emotionally sick patient, "an abortion, whether self-induced or spontaneous, merely relieves the pressure temporarily . . ."⁵⁰ Rosen, 1954.

"In other words, we at times even see patients who state they wish an abortion, and who, if it be arranged for them, actually do have it but only as a face-saving device for themselves. Underneath it all, they actually desire pregnancy. We do not believe it possible to over-emphasize this."⁵¹ Rosen, 1954.

No TA on account of mental disease has ever been done at Hague Maternity.⁵² Donnelly, 1955.

"The recent trend has been toward more liberal use of psychiatric indications, but they probably have been greatly overused. Russell reported that nervous and mental diseases made up 25 per cent of all indications for therapeutic abortion in 1950 in California, whereas renal and hypertensive causes made up only 20.9 per cent. Many qualified psychiatrists consider that therapeutic emptying of the uterus may result

⁴⁸ Dunbar, *A Psychosomatic Approach to Abortion and the Abortion Habit*, in Rosen, *id.* at 27-31.

⁴⁹ Wilson, *The Abortion Problem in the General Hospital*, in Rosen, *id.* at 197.

⁵⁰ Rosen, *The Emotionally Sick Pregnant Patient: Psychiatric Indications and Contraindications to the Interruption of Pregnancy*, in Rosen, *id.* at 232.

⁵¹ *Id.* at 241.

⁵² Donnelly, *Are There Medical Indications for Therapeutic Abortions?*, 52 *J. Med. Soc. N.J.* 112, 117 (1955).

in deep emotional trauma to the patient and that a poorly integrated personality may be made worse and even psychotic by the procedure."⁵³ Nelson & Hunter, 1957.

Report on 139 TA with 31,581 deliveries, as to psychiatric reasons (41 of 139): "In the literature this group constitutes the least logical and the most hazardous of all indications. . . . I feel that, except for the next group [neurologic], it is the least justifiable of all indications. Medical men have devised better treatment of severe diseases associated with pregnancy and have been able to markedly reduce the therapeutic abortion rate throughout the country only to find that this least justifiable of all indications, psychiatric reasons, has been allowed to run rampant. Throughout the country most authors [citing] report an increasing rate of therapeutic abortion for psychiatric reasons." Manic depressive psychosis and schizophrenia: "The problem here is one of institutional care and certainly therapeutic abortion will not solve it."⁵⁴ Scherman, 1958.

However, neurotics were quickly substituted for psychotics; and in one writing after another we begin to find suggestions that the medical man should recognize unmedical indications—economic, social, the wish of the patient—to determine his course as a medical man.

It becomes hard for a layman to avoid a feeling that there is an element in the profession that wants induced abortions and is determined to find some justification for them. It is equally hard to avoid a feeling that the real pressure for liberalized abortion comes not from medical men, concerned with medical needs, but from involuntary parents of unwanted children.

"If therapeutic abortion were limited to those cases where the life of the mother was certainly and immediately imperiled, the number of such abortions would be exceedingly small"

"In general one might say that since the [First] World War there have been two movements running counter to each other. On the one hand physicians have declared with increased evidence that certain maternal conditions such as tuberculosis, heart disease, pernicious vomiting, etc., did not require therapeutic abortion as often as reports in previous decades would seem to have indicated. . . .

"The disastrous social-economic consequences of the War, necessitating the limitation of offspring at all hazards, have led a group of honest

⁵³ Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 *Obst. & Gynec.* 284, 288 (1957).

⁵⁴ Scherman, *supra* note 41, at 330-31.

and well-meaning physicians to advocate an extension of therapeutic indications to eugenic factors, to general debility, poverty and excessively large families. Some have even gone so far as to advocate the Soviet system of legalized abortion when desired by the mother The bulk of the profession, however, is at present definitely opposed to any such far-reaching extensions of indications, and in Russia, there is an ever increasing effort to reduce the practice, since at best it subjects the woman to some immediate danger and ultimately to the risk of considerable physical deterioration."⁵⁵ Taussig, 1936.

"If one completely eliminates all socio-economic reasons, then one automatically eliminates therapeutic abortion for all fetal reasons and, for the most part, also eliminates most therapeutic abortions for any reason."⁵⁶ Greenhill, 1958.

"To deny that these forces [economic pressure, social factors and convenience] had not influenced us would be incorrect; to accept them would be unwise; and the best course would be to view future indications in the light of strict medical principles. . . ."⁵⁷ Moore & Randall, 1952.

The urge to save one's self from the burden of children is not peculiar to American women, and we find recourse to induced abortion among similar fractions in countries with such conflicting traditions as Germany and Israel.

"A survey shows that the attitude and experience on therapeutic abortion is the same in Germany as in Russia. Social indications are not acceptable, but may give some support to a medical indication. It is necessary to guard against doctors making pretense of the presence of basic disease merely as a cover for action on a social indication."⁵⁸ Kraatz, 1958.

Induced abortion other than therapeutic abortion is illegal in Israel. Most abortions reported by hospitals are shown as spontaneous, but analysis shows this to be camouflage.⁵⁹ Halevi & Brzezinski, 1958.

"In our country in the year 1953, socio-economic conditions *per se* never warrant therapeutic abortion. It is only human that they may

⁵⁵ Taussig, Abortion, Spontaneous and Induced: Medical and Social Aspects 278-79 (1936).

⁵⁶ Greenhill, Yearbook of Obstetrics and Gynecology 61 (1958).

⁵⁷ Moore and Randall, Trends in Therapeutic Abortion: A Review of 137 Cases, 63 Am. J. Obst. & Gynec. 28, 39 (1952).

⁵⁸ H. Kraatz, Grundsätzliche Gedanken zur Frage der Schwangerschafts unterbrechung, 138 Das Deutsche Gesundheitswesen 138, 141 (1958); 12 Excerpta Medica (§ 10 Obst. & Gynec.) No. 55 (1959).

⁵⁹ Halevi & Brzezinski, The Incidence of Abortion Among Jewish Women in Israel, 48 Am. J. Pub. Health 615, 621 (1958).

weigh heavily in the scale when other factors bring about consideration of abortion. For example, one is more prone to abort the cardiac patient who is unwed, on relief and already the mother of several children, than the woman with the same degree of cardiac pathology who is married, childless and well-to-do."⁶⁰ Guttmacher, 1954.

"The majority of illegal abortions are performed because of unplanned pregnancies in married women in order to regulate the size of their family."⁶¹ Willson, 1958.

"Social and economic considerations cannot always be ignored, although it goes without saying that by themselves they do not constitute a valid indication for interruption of pregnancy. All too often they exert strong influence in the decision. However, while such considerations alone should never justify therapeutic abortion, we believe that always to ignore them completely is wrong also, as occasionally these factors do play an important role."⁶² Nelson & Hunter, 1957.

Mt. Sinai Hospital in New York allows TA (1958) only after unanimous approval by a board made up of its chief of Obstetrics and chief of Psychiatry, with three others appointed from Medicine, Surgery and Pediatrics. From November 1, 1952, through March 1, 1958, it had 22,000 deliveries, 125 TA, or 1:175. Only 21 requests for permission were denied. Indications were 42% psychiatric, 26% eugenic, 10% past or present malignancy, 22% other causes. "These three conditions accounted for almost four-fifths of the cases, relegating the old orthodox trio—heart, lung and kidney—to secondary importance." Sterilization was favored during puerperium for women over 35 having 4 *living* children, and for those of all ages having 6 *living* children. Others could be sterilized on approval of the chief of Obstetrics.⁶³ Guttmacher, 1958.

"Most recent writers [Heffernan and Lynch 1953; Moore and Randall 1952; Taylor, Tillman and Blanchard 1954] stress the real need for disregarding socioeconomic and 'convenience' factors in therapeutic abortion." (But case records have notations of large family, poverty, and the like. Are these indications for TA? If they are not indications, why do they enter into the thought and consideration of a specific problem?)

"If one completely eliminates all socioeconomic reasons, then one automatically eliminates therapeutic abortion for all fetal [*i.e.*, genetic] rea-

⁶⁰ A. F. Guttmacher, The Shrinking Non-Psychiatric Indications for Therapeutic Abortion, in Rosen, Therapeutic Abortions 21 (1954).

⁶¹ Willson, Beecham, Forman & Carrington, Obstetrics and Gynecology 162 (1958).

⁶² Nelson and Hunter, *supra* note 53, at 285.

⁶³ Scope Weekly, April 2, 1958, p. 9.

sons and, for the most part, also eliminates most therapeutic abortions for any reason. The efforts of many workers have shown that with adequate hospitalization and treatment similar cases to those which in the past have been aborted can be carried to normal termination with little or no increase over their aborted counterpart in maternal morbidity or mortality."⁶⁴ Scherman, 1958.

At a Planned Parenthood seminar on abortion, New York, 1958, Dr. Kinsey insisted that the greatest number of induced abortions were found among those using contraceptives who grew careless.⁶⁵

V

TA acts on the fetus only to destroy it; that can hardly be called therapy as to the infant. Abortion can only be considered therapeutic as to the mother if in a substantial percentage of cases it substantially increases her length of life or restores her to good health. There are no adequate figures to show this result.

Effect of TA on the Mother

"The induction of abortion is attended by a certain, though in proper hands small, mortality. The dangers of infection . . . are not always avoidable . . . I consider the operation of induced abortion one of the most dangerous in obstetrics."⁶⁶ DeLee, 1913.

Soap pastes were introduced in Germany as abortifacients about 1930. They were soon attacked in German and other medical periodicals, and then in the *American Medical Association Journal*. The United States Food and Drug Administration, after long investigation, banned the use of them as posing a serious danger to health and to life.⁶⁷ Weilerstein, 1944. This *cremor saponis* is now being used in authorized Scandinavian clinics.

"According to mortality statistics there were 1,815 recorded deaths assignable to abortion in 1940. Obviously this figure represents only a fraction of the actual deaths, and by no means would it make the estimated figure of 9,480 appear unreasonable.

"Morbidity presents a much more important problem than mortality. It is impossible to estimate its incidence accurately. The number of

⁶⁴ Scherman, Therapeutic Abortion, 11 Obst. & Gynec. 323, 333-34 (1958).

⁶⁵ Kinsey, as recorded in Calderone, Abortion in the United States, ch. 8 (Abortion and Contraception), 156 (1958).

⁶⁶ DeLee, Principles and Practice of Obstetrics 1019 (1st ed. 1913).

⁶⁷ Weilerstein, Intrauterine Pastes, 125 J.A.M.A. 205-07 (1944).

women who suffer from chronic pelvic discomfort, sterility, ectopic pregnancy, surgical ablation of ovarian tissue and neuroses as a result of abortions is very many times the number who lose their lives as a result of abortion. Even when therapeutic abortions are done under the best of conditions, as in the abortaria of Russia, there is an aftermath which made the authorities question the wisdom of legalizing them."⁶⁸ Te Linde, 1946.

The New York Department of Health recorded 3,592 TA from 1943 to 1947; 1 in 250 mothers died within 1 month.⁶⁹ Tietze, 1950.

Maternal mortality rate of TB patients is slightly higher in hospitals permitting TA than in hospitals not permitting TA.⁷⁰ Heffernan & Lynch, 1953.

Of a total of 295 TA at Los Angeles County Hospital, 1931-1950, 21 died an average of 6.8 years later of the disease taken as an indication; 4 died without leaving the hospital.⁷¹ Russell, 1953.

"[T]he mortality rate on hospital services, where this operation is performed under ideal conditions for therapeutic reasons and on the recommendation of reputable physicians and hospital boards, is no higher than the mortality rate in other hospitals where this operation is not performed."⁷² Fisher, 1954.

"Whether the abortion has been 'spontaneous' or 'therapeutic,' the potential mother thereby deprived of motherhood is likely to behave in a peculiar way. She will feel both relieved and deprived. Just how she behaves will depend on the degree to which she feels herself responsible for the abortion."⁷³ Dunbar, 1954.

"Summary. It may be said that those who commit or request abortion and those who suffer or endure abortion appear to have a similar post-abortion hangover. Whatever the differences in conscious or unconscious motivations for abortion, the experience of abortion inevitably arouses an unconscious sense of guilt. Patients who voluntarily, or involuntarily, have gone through this experience should be apprised of this fact and

⁶⁸ Te Linde, *Operative Gynecology* 475 (1946).

⁶⁹ Tietze, *Therapeutic Abortions in New York City, 1943-1947*, 60 *Am. J. Obst. & Gynec.* 146, 147, 151 (1950).

⁷⁰ Heffernan and Lynch, *What is the Status of Therapeutic Abortion in Modern Obstetrics?*, 66 *Am. J. Obst. & Gynec.* 335, 336 (1953).

⁷¹ Russell, *Changing Indications for Therapeutic Abortion: Twenty Years' Experience at Los Angeles County Hospital*, 151 *J.A.M.A.* 108, 109, 111 (1953).

⁷² Fisher, *Criminal Abortion*, in Rosen, *op. cit. supra* note 60, at 9.

⁷³ Dunbar, *A Psychosomatic Approach to Abortion and the Abortion Habit*, in Rosen, *id.* at 27.

encouraged to talk about their feelings. As physicians come to understand and to apply this knowledge in their daily practice, more children will be born and more healthy children will grow."⁷⁴ Dunbar, 1954.

Of the 8 TA done at Margaret Hague Hospital 4 were for hypertensive disease; 2 of the 4 died at once; another died from cerebral hemorrhage 6 years later. The other one (1931) later had an abortion elsewhere, then a tubal ligation, 2 full term healthy babies after an ectopic pregnancy, and after the normal birth in 1952 was "still hypertensive, alive and well." Of 218 hypertensives studied here, two-thirds, with no superimposed preeclampsia, had no deaths; among the other third, complicated by preeclampsia, 6 died. Hypertension without complications is not affected by pregnancy, and abortion will not cure it; abortion may effect a cure in preeclampsia cases. The hospital had 2 TA for rheumatic heart disease, both in 1935, none thereafter. This was ruled out as an indication following the report of Gorenberg and McGeary in 1941. Of over 500 cardiacs, 1939-1952, only 2 mothers were lost, or 0.4%. The annual death rate for all rheumatic cardiacs, 1939-1952, was 2.6%. A ten year follow-up of the 260 entering here between 1937 and 1942 showed 188 still alive, with those having most pregnancies having the longest life.⁷⁵ Donnelly, 1955.

"No deaths occurred as a result of the procedure itself, although 1 patient died 6 days after curettage. This patient had malignant hypertension and uremia and we consider that she would have died regardless of treatment."⁷⁶ (Then why kill the child?) Nelson & Hunter, 1957.

"Therapeutic abortion always entails risk to the mother."⁷⁷ Donnelly, 1958.

"Maternal death rates vary considerably in different parts of the country and with different classes of patients. The mortality is higher in no-white ward patients than in either white ward or white private patients. This undoubtedly occurs because the former include the most impoverished and least well-educated people in our country. There is a higher incidence of medical complications such as essential hypertension, anemia, malnutrition, and toxemia among others, and they often remain untreated. These patients frequently do not seek prenatal care, enter-

⁷⁴ Id. at 31.

⁷⁵ Donnelly, *Are There Medical Indications for Therapeutic Abortions?*, 52 J. Med. Soc. N.J. 112, 115 (1955).

⁷⁶ Nelson and Hunter, *Therapeutic Abortion: A Ten-Year Experience*, 9 Obst. & Gynec. 284, 291 (1957).

⁷⁷ Donnelly, as recorded in Calderone, *op. cit. supra* note 65, ch. 6 (*Therapeutic Abortion in the United States*), 103.

ing the hospital late in pregnancy, attend irregularly, and cannot afford adequate diets and medications. The death rate is highest in urban communities and in the southeastern states where the concentration of non-white patients and those of low economic status is greatest. It is of interest that the largest proportion of home deliveries and of births which are not attended by physicians also occur in the deep south. Maternal mortality is lowest in the Northwest, parts of New England, and the upper Midwest, where the population is more homogeneous, with fewer Negroes and less poverty and malnutrition. Reduction in maternal mortality therefore must be a concern of educators, sociologists and economists, as well as of physicians. . . .

"The maternal death rate, which is expressed as the number of maternal deaths per 10,000 live births, was 58 in 1935, but by 1953 had been reduced to 6.1. Approximately 37 per cent of the deaths in 1935 were caused by abortion, ectopic pregnancy, or other hemorrhage, 27 per cent by infection, 22 per cent by toxemia, and the remainder by miscellaneous conditions. Hemorrhage, toxemia, and infection are still the most frequent causes of death in pregnant or recently delivered women, but those from hemorrhage and toxemia now occur more often than those due to infection. Although the reduction has been remarkable, many deaths which do occur could be avoided by more careful management. A most disturbing fact is the increasing number of deaths from anesthesia, almost all of which are caused by errors in the choice of the agent or in its administration."⁷⁸ Willson, 1958.

VI

No physician would be justified, ethically or legally, in considering an induced abortion except in the case of a complication of pregnancy which created a serious danger to the mother, and one which there was no reasonable hope of averting or overcoming by any other therapy however costly in time and effort.

From a purely medical standpoint, the obvious first step in any consideration of TA must be a determination that the TA will actually be therapeutic and not simply abortion. In other words, there must be a finding grounded in direct experience or adequately documented authority that the termination of pregnancy can be expected to remove the danger to the life of the mother without doing her any serious harm. Yet a faithful search of medical literature will disclose amazingly little evi-

⁷⁸ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* 15-16 (1958).

dence that TA is so effective in any of the situations in which it has commonly been used. It will disclose an equally amazing assortment of cases in which it has been used, and is being used, as the answer to complications which had never been recognized as indications for abortion. Surely a surgical or medical destruction of an infant life can find little justification, medically, in a vague hope on the part of a physician, or argument from analogy, or his feeling that there's no harm in trying. There are reports, chiefly from Scandinavia, which recount numerous induced abortions and boast of a low rate of mortality from the abortions, but without reporting their demonstrated effect in overcoming dangerous complicating diseases. Actually all but a small part of the authorized abortions performed under the laws of the Scandinavian countries are based on nonmedical grounds.

The doctor represents both mother and child, not merely the mother or the one who pays him; and so he has the duty to protect both lives. If not, if his duty is only to the mother, or primarily to the mother, he is certainly disqualified by interest from acting in a judicial capacity between mother and child. Here there is obvious need for a guardian or attorney to defend the interest—the right to life—of the child.

If we read the outstanding medical commentators of recent years, we find little evidence of any general professional demand for greater liberty in doing induced abortion.

"Until as recently as the past decade, therapeutic abortion was a relatively common procedure, well accepted by the majority of physicians as properly indicated for the preservation of the mother's life or immediate health in certain complicated pregnancies. . . . During the past 10 years, however, there has been a growing appreciation of the fact that many indications for therapeutic abortions are no longer tenable in the light of continuing advances in medical and surgical knowledge. This realization has stimulated many institutions and organizations to study this procedure carefully and to reevaluate their methods of managing the associated problems."⁷⁹ Russell, 1953.

"Modern medicine is a fluid science: there is, as a result, an ever-changing list of abnormal conditions for which abortion is currently indicated. Some long authenticated indications have virtually disappeared, while others are increasing in importance or being newly introduced. On the whole, the over-all frequency of therapeutic abortion is on the decline. This is due to two facts: first, cures have been discovered for a number

⁷⁹ Russell, *supra* note 71, at 108.

of conditions which previously could be cured only by termination of pregnancy; and, second, there has been a change in medical philosophy. Two decades ago the accepted attitude of the physician was that, if a pregnant woman were ill, the thing to do would be to rid her of her pregnancy. Today, it is felt that unless the pregnancy itself intensifies the illness, nothing is accomplished by abortion."⁸⁰ Guttmacher, 1954.

"As mentioned repeatedly in this volume, the incidence of therapeutic abortion because of organic disease has fallen dramatically during the past decade or so. This change has not come about through any outright endeavor on the part of the obstetricians to curtail interference with gestation, but has stemmed almost entirely from the gradual realization, based on extensive clinical experience, that pregnancy, if properly managed, seldom aggravates organic disease.

"Let us consider, for example, the three conditions which have long constituted the most frequent indications for therapeutic abortion on a physical basis, namely, essential hypertension, rheumatic heart disease and pulmonary tuberculosis."⁸¹ Eastman, 1954.

"Therapeutic abortion is a greatly abused operation and the incidence of the procedure the country over is much higher than it should be."⁸² Williams, ed. Eastman, 1956.

"Therapeutic abortion is becoming less frequent as medical and obstetric knowledge progresses. As Eastman has pointed out in the foreword to a book by Rosen, this change also has come about from the realization that pregnancy, if properly managed, seldom aggravates organic disease."⁸³ Nelson & Hunter, 1957.

"Most gynecologic conditions can be corrected by medical rather than surgical treatment, and many can be managed by the family physician who will take time to examine his patients and make accurate diagnoses."⁸⁴ Willson, 1958.

"Occasionally it is necessary to terminate a pregnancy which is endangering the life and health of a mother. This is called therapeutic abortion. That the need for therapeutic termination of pregnancy is limited is indicated by the fact that Cosgrove and Carter reported an incidence of only 1 in every 16,750 deliveries at the Margaret Hague Maternity Hos-

⁸⁰ A. F. Guttmacher, *The Shrinking Non-Psychiatric Indications for Therapeutic Abortion*, in Rosen, *Therapeutic Abortion* 13 (1954).

⁸¹ Eastman, *Obstetrical Foreword*, in Rosen, *id.* at xix.

⁸² Williams, *Obstetrics* 1077 (11th ed. Eastman 1956).

⁸³ Nelson and Hunter, *supra* note 76, at 284.

⁸⁴ Willson, Beecham, Forman and Carrington, *op. cit.* *supra* note 78, at 15.

pital. This figure is much lower than the average, which has been about 1 in 200 deliveries. During recent years, as newer methods for controlling acute and chronic disease processes have been developed, the need for therapeutic abortion has markedly decreased. . . . There still are a few patients in whom we believe therapeutic termination of pregnancy to be warranted."⁸⁵ Willson, 1958.

"We must assume that the decreased incidence of therapeutic abortion in the past few years has not been due to a general decrease in complicated pregnancies, nor to a change in the type of these complications, but rather to a better understanding of such complications and a greater realization that with correct therapy the disease and pregnancy are compatible.

"Throughout the country there has been a great effort in recent years in an attempt to halt, or at least decrease, the loss of human life that occurs in an estimated 18,000 therapeutic abortions a year."⁸⁶ Scherman, 1958.

"The statistics presented show evidence of a very important trend in regard to therapeutic abortion. All major organic illnesses have shown a considerable decrease in frequency as indications. It shows that, even in the face of the serious complicating diseases, with competent care, disease and pregnancy are compatible in most instances."⁸⁷ Scherman, 1958.

"Treatment of the conditions which are aggravated by pregnancy has been so improved that they are now managed satisfactorily without interfering with the gestation. Therapeutic abortion accordingly is rarely justifiable."⁸⁸ Beck & Rosenthal, 1958.

"For years medicine has taught that pregnancy, though a normal physiologic process, is such a tremendous burden that it adds an unbearable load to any ill, diseased or handicapped person and, therefore, the two are not compatible. . . . In most instances no one has ever been able to define what the burden consisted of, but these statements were accepted. They were accepted by men who, for the most part, were dedicated to saving lives and who, when faced with such a seemingly overwhelming problem, took the only known way out by destroying the part of that problem which could not resist, while hoping to save that

⁸⁵ Id. at 164-65.

⁸⁶ Scherman, *Therapeutic Abortion*, 11 *Obst. & Gynec.* 323, 325 (1958).

⁸⁷ Id. at 333.

⁸⁸ Beck and Rosenthal, *Obstetrical Practice* 914 (7th ed. 1958).

portion which could go on living and in the future bespeak not the evil but only the life-saving efforts of the man of science. . . .

"In recent years the existence of these accepted terms of burden, strain, and load have been disproved in association with most diseases and, in the rare instances where they do exist, better methods of combating them have been found."⁸⁹ Scherman, 1958.

VII

We believe that our extracts from the medical literature of recent years, with flash-back to the turn of the century, are representative of the best medical thought during those years. We believe further that any review of that literature must make clear:

(1) that the medical consensus on the medical reasons for induced abortion was originally built up to a large extent on hasty impressions and reactions, without real evidence of therapeutic gain and with no attempt to tabulate the immediate and delayed effects on maternal mortality and morbidity of such operations, and comparatively, the mortality and morbidity of women not so operated upon, from complications recognized as indications for TA;

(2) that the predominant medical thought, based on more carefully observed experience, has reduced the recognized indications year by year until few are now recognized at all and that more and more doctors have come to reject the idea of TA entirely;

(3) that thousands of infant lives have been destroyed on supposed indications whose recognition is now considered erroneous;

(4) that there is not now and never has been a uniform attitude based on a uniform judgment towards TA; and

(5) that there is no swelling demand from medical men for greater freedom in ordering abortion on medical grounds, but that the present pressure is for freedom to have abortions for the convenience of the mother.

TA is grabbing at the easiest way, instead of striving for the best way. When TA is banned, medics have usually, under pressure of necessity, found a right way. Medical history justifies the belief that if TA is prohibited, the progress of medicine will remove the hazard the TA was designed to avoid; but if TA becomes the common practice, medical progress as to these conditions will become a dead-end street. There will be no study or thought given to how to avoid harm from a normal term

⁸⁹ Scherman, *supra* note 86, at 323-24.

delivery in any particular situation if there are never to be any normal deliveries in such a situation.

Before Semmelweiss (1847) and O. W. Holmes (1843), the percentage of puerperal (childbed) fever deaths might have justified abortion in every pregnancy, if the argument for TA is sound at all.

There are no real statistics or direct medical findings to support most of the accepted medical "indications." They are based on reports of a small number of cases by individual doctors or teams, usually on maternity sections of single small hospitals or selected cases in individual hospitals (the German report on 4 cases) and the hospitals have seldom been chosen as representative. Outstanding exceptions are the maternity cases of such really big hospitals as the Margaret Hague Maternity and the Los Angeles County Hospital.

Thousands of unborn infants have been slaughtered already on "indications" which are now recognized as offering no special threat to the pregnant, most of them now successfully treated without loss of the child. They were destroyed in the womb on the basis of general, or dominant, medical opinion at the time, yet all are now discredited. The "indications" of today are entitled to no greater respect as a basis for legislation. The purely medical have been almost wholly abandoned, with a shift to protection of mental health on which psychiatrists are not agreed but to which most are opposed. The further shift to neurotic indications has become a medical man's judgment of the economic and social or purely selfish factors which he believes to be responsible for the patient's condition.

The destruction of the unborn child was authorized to save the life of the mother. Now we are asked to give the practice legal authority, to prevent any disturbance of mental or emotional poise, through shame, dread of the burden of caring for the child or on the basis of similar considerations. Such considerations are not an excuse for TA anywhere in the United States, and they should not come to be.

How many mothers at some time during pregnancy threaten abortion or suicide? How many of these, even at the time of depression, would actually attempt it and not have a crushing reaction after this moment of strain had passed?

A mother who would sacrifice the life of her unborn child for her own health is lacking in something. If there could be any authority to destroy an innocent life for social considerations, it would still be in the interests of society to sacrifice such a mother rather than the child who might otherwise prove to be normal and decent and an asset.

Many medical practitioners never have a case in which they would justify a TA; yet each feels very strongly that he should be free to have a TA performed if and when he may get a case in which he believes the TA necessary for the mother. This is a natural feeling, but it is only a feeling, which need not obstruct or cramp any of his work. And in any event it should not be allowed to obscure several patent facts:

(1) that in medical practice as in other professions not all members are equally ethical;

(2) that the difference in diligence, patience and general attitude towards interference with pregnancy on the part of different medical men makes any uniform handling rationally inconceivable;

(3) that the availability of the easy method of TA to meet any combination of pregnancy with complicating disease would offer a constant temptation to resort to TA when other but more difficult or time consuming methods would fully protect the mother without sacrifice of her child;

(4) that practitioners for whom TA was not available have met the challenge by working out successful medical treatment for complications once regarded as impossible of management except by TA;

(5) that the average practitioner may make a mistake in determining the necessity for TA in a particular case;

(6) that a consultant who may get his case-taking and anamnesis from the physician calling him may err in consequence;

(7) that after a particular indication for TA has been proven both unnecessary and harmful, it will be a matter of years before the whole profession abandons it; and

(8) that the end does not justify the means.

If an underwriters' engineer were authorized, with the endorsement of one associate, to destroy every building he labeled a fire hazard, without giving any reason therefor, he might do much good to the city at large, like an MD with unrestricted authority to order TA with the endorsement of another MD but without a statement of his reason. But he might make errors of judgment, not appealable if no reason is given or required; he might be competent to recognize the danger in the existing structure, but incompetent to recognize a practical way of removing the danger without destroying the building; he might tear down a building that was not actually a fire hazard, to benefit an adjoining property. Less ethical engineers might destroy buildings for even less ethical reasons, and the owners of the buildings destroyed would have to stand the loss.

VIII

In addition to the indications just discussed, there is mention made today of factors, not strictly medical, which also are said to be reasons for TA. It is our purpose to take up these here.

Eugenic Abortions

"Therapeutic abortion for eugenic reasons, for faulty germ plasm, is far less common than preconceptional sterilization in such cases. . . . Each such case must be submitted to the most searching scrutiny. After such scrutiny, few pregnancies merit interruption."⁹⁰ Guttmacher, 1954.

"There are frequent statements in the literature, and especially in the older literature, to the effect that patients with schizophrenia, manic-depressive psychosis, some neuroses, epilepsy and diabetes should not have children because of the inheritable nature of their diseases. There are even not infrequent recommendations to the effect that these conditions *per se* constitute sufficient reason for interrupting a given pregnancy. For obvious reasons, we do not feel that these particular articles merit the emphasis of bibliographic reference. What seems biological inheritance, as Meyers and Murdock both stress in their chapters elsewhere in this book, in these diseases may frequently be familial and cultural environment."⁹¹ Rosen, 1954.

Huntington's Chorea means progressive deterioration; it is hereditary, but may skip a generation. "Since pregnancy does not impair the health of the choreic or endanger her life, there is no legal reason for therapeutic abortion."⁹² Greenhill, 1955.

There are just two conditions, or developments, which can be seriously considered today as eugenic reasons for induced abortion: RH factor difference and rubella (German measles) contracted by the mother before or during the first 3 months of pregnancy. Both were first the subject of report and discussion about twenty years ago. Apparently both will in a very short time have ceased to be a problem at all.

1. RH Factor

Rh factor difference may result in an erythroblastotic infant; it is suggested that this be recognized as a new indication for TA.⁹³ Perlmutter, 1947.

⁹⁰ A. F. Guttmacher, *supra* note 80, at 20.

⁹¹ Rosen, *The Emotionally Sick Pregnant Patient: Psychiatric Indications and Contraindications to the Interruption of Pregnancy*, in Rosen, *op. cit.* *supra* note 80, at 243.

⁹² Greenhill, *Obstetrics* 548 (11th ed. 1955).

⁹³ Perlmutter, *Analysis of Therapeutic Abortions, Bellevue Hospital 1935-1945*, 53 *Am. J. Obst. & Gynec.* 1015 (1947).

An indication for TA "when the mother has delivered one or more erythroblastotic babies and her husband is homozygous. If he is heterozygous it need not be interrupted."⁹⁴ DeLee, ed. Greenhill, 1951.

"Erythroblastosis Fetalis is usually not looked upon as an indication for therapeutic abortion. In serious instances of this disease the child is either stillborn, dies in the first few hours of life, or survives. When it survives, a good prognosis can be given for normalcy if, when indicated, copious exchange transfusion is promptly carried out."⁹⁵ Guttmacher, 1954.

"If infants have been severely affected and have died in previous pregnancies despite good treatment, and if the father is homozygous Rh positive, termination can be considered because there is no way of preventing a recurrence."⁹⁶ Willson, 1958. (Apparently this author would avoid the likelihood of a child being lost, by making certain of its destruction in advance. Others however had already taken a more cheerful view of this situation.)

"Since the permeability of the placenta to antibodies increases as pregnancy advances . . . it may be advisable to deliver some mothers several weeks before term When so indicated the pregnancy may be terminated by the induction of premature labor or by Caesarean section. On the other hand, the hazards of extreme prematurity must be avoided."⁹⁷ Beck & Rosenthal, 1958.

Dr. Potter, who has done much work in this field, reported a year ago on 302 births to 241 women, complicated by Rh factor difference, but found so many other elements that she was unwilling to shape any conclusions.⁹⁸ Potter, 1959.

"[I]t is important to stress that the term 'placental barrier' is no longer considered inclusive enough to represent the total maternal-fetal relationship involved in pregnancy. The amnion, membranous chorion, and decidua vera deserve consideration as well as the villus placenta and decidua basalis." From 1941 on, writers on Rh factor in erythroblastosis have offered different theories on how the barrier is crossed.

"It is my opinion that certain obstetric procedures, if used regularly, may decrease the incidence and severity of problems arising as a result of the passage of protein substances across the maternal-fetal barrier

⁹⁴ DeLee, *Principles and Practice of Obstetrics* 977 (10th ed. Greenhill 1951).

⁹⁵ A. F. Guttmacher, *The Shrinking Non-Psychiatric Indications for Therapeutic Abortion*, in Rosen, *Therapeutic Abortion* 21 (1954).

⁹⁶ Willson, Beecham, Forman and Carrington, *Obstetrics and Gynecology* 165 (1958).

⁹⁷ Beck and Rosenthal, *op. cit. supra* note 88, at 690.

⁹⁸ Potter, *The Abortion Problem*, 19 GP 105, 109 (1959).

and that some obstetric procedures regularly practiced may be increasing the incidence and severity of these problems." Emphasis was placed on prenatal care; ascorbic acid and bioflavonoids were thought effective. Avoid amniotic fluid embolism by perforating sac to permit leakage. Abruptio placentae an extremely dangerous complication.⁹⁹ Reilly, 1960.

A number of other reports indicating some success in overcoming this complication have been published during the last two years, which we have not had opportunity to study.

2. *Rubella (German Measles)*

An Australian report on rubella contracted during the first 3 months of pregnancy as causing a high percentage of fetal deaths, stillbirths and abnormal infants alarmed many American medics and moved them to accept such infection in early pregnancy as a new indication for TA. However they did so on a purely eugenic basis, as there has never been any suggestion that this complication could offer the least threat to the life or the physical or mental health of the mother.

Recognized indications for therapeutic abortion: Rubella. A high percentage of these cases "show severe congenital anomalies," on the basis of the study by C. H. Albraugh in 129 J.A.M.A. 719 (1945).¹⁰⁰ (The relationship first discovered by Gregg in 1941.) Perlmutter, 1947.

Rubella was first taken as an indication on the basis of a report by Swan, Tostevin, Mayo and Black on 109 Australian cases to 1944 and 58 cases from 1945 to 1946.¹

"German measles contracted before the end of the third month is an indication because most of the forthcoming babies will have congenital defects, particularly eye defects, heart disease, dental abnormalities and deaf mutism."² DeLee, ed. Greenhill, 1951.

German measles contracted before the end of the third month may be an indication because many babies will have congenital defects et cetera.³ Greenhill, 1955.

Rubella and other virus infections have been taken as indications for TA in recent years.⁴ Heffernan & Lynch, 1952.

⁹⁹ Reilly, *The Maternal-Fetal Barrier*, 80 Am. J. Obst. & Gynec. 391-95 (1960).

¹⁰⁰ Perlmutter, *supra* note 93, at 1015.

¹ As reported in 134 J.A.M.A. 1579 (1947).

² DeLee, *op. cit.* *supra* note 94, at 977.

³ Greenhill, *op. cit.* *supra* note 92, at 500.

⁴ Heffernan and Lynch, *Is Therapeutic Abortion Scientifically Justified?*, 19 Linacre Q. 11, 22-23 (1952).

Highly respected investigators expressed in 1953 a pessimistic view of prospects for the fetus when rubella is contracted early in pregnancy.⁵ Krugman, 1953.

"Since the initial work of the Australians in 1941, an immense literature has made it clear that at least 30% of children whose mothers have German measles before the 12th week of pregnancy are born with congenital abnormalities . . . congenital cataracts, deafness, or other serious defects. This appears true even when the infection antedates pregnancy by a few weeks. However, after the 16th week the embryo no longer seems sensitive to this maternal disease. The other exanthemata [eruptive diseases] have been carefully studied for similar harmful influences, but none has been found. In view of this, many obstetricians feel that if rubella is unqualifiedly diagnosed before the 12th week of pregnancy by a doctor experienced in infectious diseases, therapeutic abortion should be performed."⁶ Guttmacher, 1954.

"German Measles contracted before the end of the third month may be an indication, because many babies will have congenital defects, particularly eye defects, heart disease, dental abnormalities and deaf mutism."⁷ Greenhill, 1955.

Rubella in the first 4 months causes severe congenital defects in probably 1 out of 5 or 6 cases. Lundström (1952) reported stillbirths, prematurities and other abnormalities in 17 of 579 who had rubella in the first 4 months; 6% among control group of 2,226. The chief abnormalities are cataracts, deaf-mutism, cardiac anomalies and mental retardation. A carrier of rubella can infect a pregnant woman before the carrier shows any external symptoms, and before the pregnancy is recognized. Gamma globulin from a healthy person is variable in effectiveness; "nor have the results with convalescent gamma globulin been any more consistent or reliable."⁸ Horstmann, 1956.

Horstmann cites the studies of Krugman and Ward published in 1953, but he did not have the benefit of their re-evaluation of 1958. Rubella and other diseases endanger the child but cause no increase in hazard to the mother.⁹ Beck & Rosenthal, 1958.

⁵ Krugman, Ward and Lanzar, Studies on Rubella Immunization, 151 J.A.M.A. 285, 287 (1953).

⁶ A. F. Guttmacher, *supra* note 95, at 21.

⁷ Greenhill, *op. cit.* *supra* note 92, at 500.

⁸ Horstmann, Rubella (German Measles), in Meakins, The Practice of Medicine 252 (6th ed. 1956).

⁹ Beck and Rosenthal, Obstetrical Practice 731-42 (7th ed. 1958).

Five years after their first report, Krugman and Ward had determined that the work done on this problem since 1953 required further consideration. They published the results of a re-evaluation showing only 0.9% contraction of rubella among 541 immunized pregnant women exposed to it, as against 11.2% for a control group of non-immunized pregnant and nonpregnant. Then as to the child: "The risk of congenital malformation resulting from a first trimester pregnancy complicated by rubella can best be determined by prospective studies. The early estimates of 90 or more per cent were derived from retrospective studies, which originated with the damaged infant; the normal infants, therefore, did not come to the attention of the observers. In recent years a number of surveys of the prospective type have been reported. . . . These studies have originated with the rubella infection in the pregnant woman, and have ended with the new-born infant—normal or abnormal. The accumulated data at the present time indicate that maternal rubella infection in the first trimester may be followed by congenital malformations in 10 to 12 per cent of cases."¹⁰ Krugman & Ward, 1958.

A distinguished Scottish physician writes quite differently. Rubella is transmitted by direct contact (possibly by bedding, clothing et cetera) only in the preliminary and eruptive stages. "The common abnormalities reported have been congenital cataracts, deafness and cardiac defects. . . . When a woman in the early months of pregnancy is exposed to the disease sero-prevention should be practiced. Gamma-globulin has been prepared from rubella convalescents and may be obtained from Blood Transfusion Centres. If not available, ordinary gamma-globulin in double the dose advised for measles (q.v.) should be given."¹¹ There is no suggestion of TA. Anderson, 1958.

Two studies of rubella in small groups were published during 1959. One was on the rubella epidemic of 1955-1956 in Montreal. Of 31 mothers who went full term, 25 had normal, healthy infants; 3 infants were lost—one, a stillbirth, two (with heart defects and cataracts) dying within 3 weeks. The other 3 survived—one, with a heart defect and cataracts, one with microphthalmia but otherwise normal and healthy, and one with a heart murmur at 6 weeks but given a good prognosis.

¹⁰ Krugman and Ward, *Rubella: Demonstration of Neutralizing Antibody in Gamma Globulin and Re-evaluation of the Rubella Problem*, 259 *New England J. Med.* 16, 17-18 (1958).

¹¹ Anderson, *Infectious Diseases*, in Dunlop, Davidson and Alstead, *Textbook of Medical Treatment* 39 (7th ed. 1958).

*Only 8 of the 31 had been given gamma globulin, and none had had convalescent serum.*¹² Oxorn, 1959.

Two medics reported on the beginning of a more extensive study. This report was on 89 infected in the first trimester and a control group of 91 free of rubella. The control group had fewer fetal deaths; the infected 89 had fewer abnormal infants.¹³ Siegel & Greenberg, 1959.

Of course neither of these two reports dealt with a large enough number to have any great significance; but they give the most recent view of the work which is now occupying many in this field.

CONCLUSION

If TA is to continue to be recognized on a medical basis in spite of the medical testimony against it, we should recommend:

- (1) that it be confined to no-fee clinics;
- (2) that it be done only on the recorded judgment of the staff or a specially qualified committee, on specified medical grounds, reciting the facts of each case and the authority for holding that TA is necessary and will be beneficial in such case, without offsetting after-effects;
- (3) that such judgment be entered only after appearance of a public guardian or attorney for the unborn;
- (4) that a follow-up record on each patient be required, with a clearing house for reports of all cases and continuous revision of acceptable indications in the light of additional experience, development of therapies et cetera;
- (5) that the statutory excuse of necessity of TA for the preservation of the life of the mother be made an affirmative defense, to be proved by the defendant as a fact, not as a mere opinion;
- (6) that there be denied to any staff or committee the authority to approve TA in any case in which it is asked on social or other non-medical grounds, or on a record in which entries have been made of such nonmedical elements.

¹² Oxorn, Rubella and Pregnancy—A Study of 74 Cases, 77 Am. J. Obst. & Gynec. 628 (1959).

¹³ Siegel and Greenberg, Virus Diseases in Pregnancy and Their Effects on the Fetus, 77 Am. J. Obst. & Gynec. 620 (1959).

GLOSSARY

- abruptio placentae*: premature detachment of the placenta.
- accouchement forcé*: artificially hastened delivery (usually by forceps).
- albuminuria*: the presence of albumin (a simple protein) in the urine, due to the presence of blood (or other albuminous fluid) escaping somewhere in the urinary tract.
- amnion*: the inner of the membranes composing the sac which envelops the fetus in the uterus.
- amniotic fluid*: fluid which surrounds the fetus and protects it from injury.
- anemia*: a condition caused by: reduction in amount of blood present; or deficiency in red-blood cells; or deficiency of hemoglobin.
- hypochronic anemia*: anemia marked by a lowered color index of the blood.
- pernicious anemia*: marked diminution of red corpuscles—usually fatal.
- sickle cell*: crescent shaped red blood cell peculiar to the Negro race.
- arteriolar lesions*: injury or damage to an arteriole (a minute artery continuous with the capillary network).
- arteriosclerosis*: hardening of arteries due to fibrous overgrowth of the inner coat of an artery.
- calcific pericarditis*: inflammation of the sac enclosing the heart, caused by lime or similar salt deposits.
- carcinoma*: cancer: malignant growth.
- chorea* (St. Vitus' Dance): a toxic or infectious disorder of the nervous system manifested by involuntary spasmodic movements of limbs or facial muscles.
- chorion*: outermost of the fetal envelopes derived from the ovum.
- curettage*: scraping of the interior of the uterus to remove new growths and abnormal tissues.
- cyanosis*: dark blue coloration of the skin due to deficient oxygenation of blood in the lungs or to a great reduction of blood in its passage through the capillaries.
- decompensation*: failure of counterbalancing of the circulation of the heart.
- dermoid*: (skin-like) a congenital tumor, the walls of which resemble skin and sometimes give origin to teeth or hair.
- dystrophy*: defective nutrition.
- eclampsia*: a disease occurring in the latter part of pregnancy and marked by convulsive seizure and coma. The toxemias (blood-poisonings) of pregnancy are preeclampsia (early stage) and eclampsia (final stage).
- ectopic pregnancy*: pregnancy outside the uterine cavity (e.g., tubal pregnancy).
- edema*: excess accumulation of watery fluid in the tissue spaces of the tissues.
- erythroblastosis*: an anemia of newborn children which develops when mother is an RH negative and develops antibodies against the fetus which is RH positive.
- exanthemata* (plural of *exanthema*): an eruption upon the skin.

fibroid tumor: tumor composed of fiber or fibrous connective tissues.

glomerulonephritis: inflammation of the kidneys with pronounced lesions of the blood vessels within the kidney.

glycogen: a carbohydrate readily converted into glucose.

hepatic: relating to the liver.

hepatitis (infectious): a virus-caused disease which attacks the liver.

hydatidiform mole: rapidly growing mass arising from the proliferation of the chorionic blood vessels. The mass fills the uterus.

hydramnios: an excess of amniotic fluid.

hydronephrosis: enlargement of kidneys due to obstruction of the flow of urine.

hyperemesis gravidarum: pernicious vomiting during pregnancy.

hypertensive vascular disease: vascular disease marked by increased blood pressure.

hypertension: high arterial blood pressure.

hyperthyroidism: symptoms produced by excessive activity of the thyroid gland.

hypertrophy: general increase in size of organ, but not due to formation of a tumor.

hysterectomy: surgical removal of the uterus.

icterus: jaundice.

intra-peritoneal: within the abdominal cavity.

ischemia: a local anemia due to obstruction of the blood supply.

mitral stenosis: a narrowing of the mitral valve in the heart.

myasthenia gravis: aggravated muscular weakness.

myoma (pl.: *myomata*): tumor composed of muscular tissues.

necrosis: death or degeneration of a specific group of cells.

neoplasm: new growths.

nephrectomy: surgical removal of a kidney.

nephritis: inflammation of the kidneys.

nephrolithiasis: kidney stones.

parenteral: relating to nourishment introduced by some method other than through the digestive tract and intestines (e.g., intravenous feeding).

peritoneum: the sac lining the abdominal cavity.

placenta: the organ on the wall of the uterus attached to the fetus by the umbilical cord, and through which the fetus is nourished.

placenta praevia: a condition whereby the placenta implants in the lower portion of the uterus and entirely or partially blocks the opening in the cervix.

polycystic: composed of many cysts.

polyhydramnios: an excess of amniotic fluid.

porphyria: the excretion of porphyrin (an organic pigment) in the urine.

preeclampsia: the state or condition preceding eclampsia (marked by headache, vomiting etc.).

proteinuria: excretion of any protein in the urine.

psychosomatic: pertaining to influence of mind or higher functions of the brain (fear, desire etc.) upon body functions, especially in relation to disease.

puerperal fever: the post-natal presence of bacteria in the blood stream which causes a fever.

pyelitis (pyelonephritis): inflammation of the pelvis of a kidney.

rectosigmoid: the rectum and lower curved portion of the colon considered together.

renal: relating to the kidneys.

Rh factor (positive): a substance present in red blood cells in about 85% of human beings. Rh negative means the blood does not contain this substance.

rubella: German measles.

stasis: stagnation of blood or other fluids.

subarachnoid hemorrhage: hemorrhage below the middle membrane, or middle layer of membranes covering the brain or spinal cord.

syndrome: concurrence of symptoms.

systolic blood pressure: the blood pressure which is due to systole, *i.e.*, the contraction phase of the heart beat.

thyrotoxicosis: poisoning by an excessive thyroid secretion.

toxemia: blood-poisoning.

trauma: a wound or injury, usually suddenly inflicted.

uterine myomata: tumors of the uterus.

vascular lesion: tearing of blood vessel.

vasoconstrictive: causing narrowing of the blood vessels.

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