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MORE CONSERVATISM IN CESAREAN SECTION

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THE high death rate attending pregnancy[1] in the United States is again exciting much discussion; first because it has remained almost stationary for many years while the mortality attending major surgical procedures has been steadily declining; and second because the maternal mortality rate in the United States continues to exceed that of nearly every other important country (Fig. 1). The earlier attempts to focus national attention upon this question failed largely because of the insistence of those who claimed that our rate was fictitiously high because there was no uniform method of interpreting maternal mortality data in various countries. More recently, however, a committee headed by Elizabeth Tandy, director of the Statistical Division of the Children's Bureau, created by the White House Conference to compare the maternal mortality rates of various countries dispels this view by its report (in 1935). It stated that "differences in method of assignment of death causes (when there are multiple or joint causes of death) are insufficient to explain the high maternal mortality of the U. S. as compared with foreign countries," and that maternal mortality "rates for the U. S. estimated in accordance with the assignment procedure of the respective countries are in all instances except Scotland in excess of and in five instances more than double the official rate of the countries themselves."

A series of recent studies represent America's first serious attempts on an adequate scale to discover the reasons for and to control its high maternal mortality rate. A review of the maternal deaths recorded during 1927 and 1928 in 15 states in the birth registration areas, made by the United States Children's Bureau, has been followed by other similar compilations for cities, among which we may cite those of New York for 1930, 1931, and 1932; Philadelphia for 1931, 1932, and 1933; San Francisco and the Bay Cities for 1932 to 1935 inclusive; and the 7 large cities of the Pacific Coast for 1933 and 1934.

The observations in these mortality studies concerning cesarean section attract our attention because this operation recently has become a very common instead of a most uncommon method of operative delivery, and because more than one-half of the deaths following cesarean section have occurred in women who previously had borne children through the normal birth passages. Moreover, the incidence of cesarean section in mortality studies cited above has risen from 11 per cent in 1927 to 33 per cent in 1934. Thus we find that cesarean section preceded 11 per cent of all puerperal deaths in or after the seventh month of pregnancy in the 15 states' report for 1927 and 1928. For New York City, 1930 to 1932 inclusive, the figures were 19.8 per cent; for Philadelphia (1931 to 1933 inclusive) 23 per cent; for San Francisco and the Bay Cities (1932 to 1935 inclusive) 31 per cent; and for the 7 Pacific Coast Cities (1933, 1934) 33 per cent. It was the method of delivery in 2.2 per cent of all births in New York City in 1930 to 1932, of 2.58 per cent of all hospital deliveries there, and in 1.78 per cent of all the births in the entire city of Philadelphia for the 3 years 1931 to 1933 inclusive. It was utilized for more than 3 per cent of all births during 1933 and 1934 in Los Angeles County (Thompson) and for 5.5 per cent of all hospital births in San Francisco, Berkeley, and Oakland in the period from 1932 to 1935 inclusive. In 1934 there were 6 states in which at least 1.3 per cent of all deliveries were by cesarean section: in Massachusetts, there was 2.05 per cent; in California 2 per cent; in Connecticut 1.53 per cent; in New York and Wisconsin each 1.34 per cent; in Maine 1.3 per cent. In fact, 0.76 per cent of all women delivered in the United States in 1934 were by cesarean section, as were 2.8 per cent of all the hospital births.

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[1] Mortality rates obtained from U. S. Census, U. S. Dept. of Labor, Children's Bureau, Washington, D. C. Incidence of cesarean section, percentage of deliveries in hospitals, and hospital mortality rates obtained from the American College of Surgeons.

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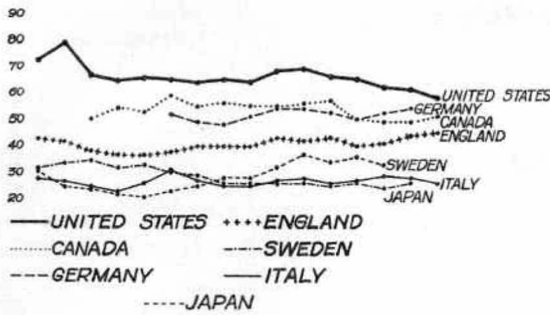

Fig. 1. Trend of maternal mortality in the United States and certain foreign countries; deaths assigned to pregnancy and childbirth per 100,000 live births.

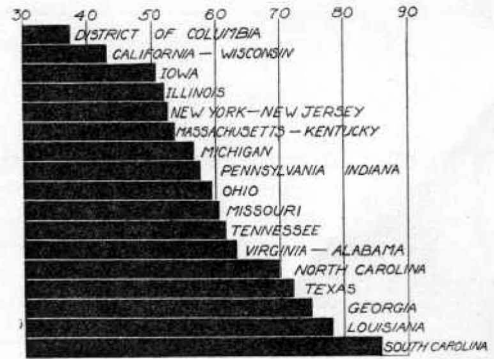

Fig. 2. Maternal mortality in United States, 1934. Rate per 1000 live births. Includes all States with more than 50,000 births except District of Columbia, 10,137; South Carolina, 44,625.

This tremendously increased incidence of cesarean section should have done something to reduce the United States maternal mortality rate if the indications for the operation were sound and the mortality rate was properly low. The national maternal mortality rate, however, has remained practically unchanged for many years. Nor do graphs of maternal and fetal mortality by states and by their urban and rural communities show reductions which can be credited to this operation alone. The states with the lowest maternal mortality are not uniformly those which have the highest incidence of cesarean section, nor do the states with the highest incidence of cesarean section uniformly have the lowest mortality rate during the last 5 years. This can be seen by study of the tables. Yet we should expect such results if the operation now saved lives that would have been lost during other methods of delivery formerly employed and now largely abandoned (Tables I, II, III, IV, and V).

TABLE I.—STATES WITH LOWEST MATERNAL MORTALITY AND THEIR INCIDENCE OF CESAREAN SECTION

State—1934	Maternal mortality per cent	Incidence of cesarean section per cent	Deliveries in hospital per cent
District of Columbia	.38	.98	57.0
Vermont	.39	1.15	27.9
California	.43	2.00	39.2
Wisconsin	.43	1.34	27.2
Minnesota	.45	.42	28.9
Utah	.45	.34	29.3
Connecticut	.47	1.53	59.2
North Dakota	.47	.22	17.5
Washington	.49	.89	35.2
South Dakota	.51	.31	12.2
Iowa	.51	.64	19.5
Nebraska	.52	.96	18.4
Illinois	.52	.97	50.5
New York	.53	1.34	57.2
Massachusetts	.54	2.05	50.3
Michigan	.57	.62	26.6
Pennsylvania	.58	1.01	36.7
Indiana	.58	.79	17.5

This tremendous increase in cesarean section has been initiated both by the laity and profession—the laity because of desire to

TABLE II.—STATES WITH HIGHEST INCIDENCE OF CESAREAN SECTION AND THEIR MATERNAL MORTALITY, EXCLUSIVE OF SOUTHERN STATES

State—1934	Incidence of cesarean section per cent	Maternal mortality per cent	Deliveries in hospital per cent
Massachusetts	2.05	.54	50.3
California	2.00	.43	39.2
Connecticut	1.53	.47	59.2
New York	1.34	.53	57.2
Wisconsin	1.34	.43	27.2
Maine	1.30	.60	14.5
New Hampshire	1.18	.57	31.1
Vermont	1.15	.39	27.9
Pennsylvania	1.01	.58	36.7
New Jersey	1.01	.53	46.9

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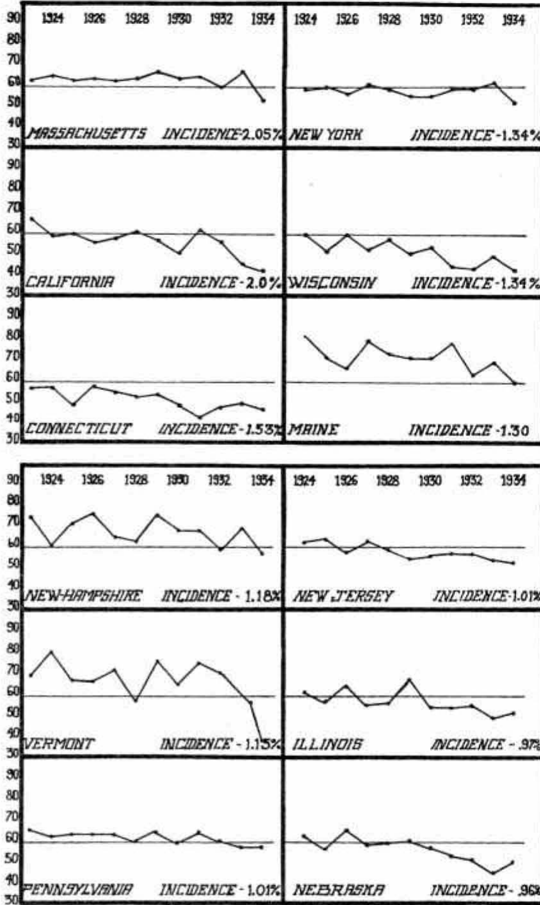

Fig. 3. Maternal mortality of states with highest incidence of cesarean section.

escape the pain and terror of labor which they have been taught to believe is an unnecessary and unmodern thing—the profession because it feels that improvements in surgical technique must have made safe an operation the surgical mortality of which could have been considerable only in almost antediluvian time. Consequently, physicians with neither special training in obstetrics or in general surgery undertake cesarean section without full consciousness of the threat that their surgery entails. They choose the classical cesarean because it seems simplest to perform. Yet the classical cesarean section is and always must be one of the most illogical of surgical procedures—one which infection can readily break down. No other operation is uniformly attended by as much blood loss, by as frequent postoperative shock, or by as dense abdominal adhesions; in no other operation do the incised uterine muscles begin involution even while the surgeon is sewing the incision. Failures in healing, therefore, are easy to understand. The blood vessels in the uterine wall are controllable in classical cesarean section only by mass ligation; only in this way can one obtain a dry wound. Yet none of us would expect to obtain a firm scar in the abdominal wall if its muscles began involution

TABLE III.—STATES WITH LOWEST INCIDENCE OF CESAREAN SECTION AND THEIR MATERNAL MORTALITY, EXCLUSIVE OF SOUTHERN STATES

State—1934	Incidence of cesarean section per cent	Maternal mortality per cent	Deliveries in hospital per cent
North Dakota	.22	.47	17.5
Utah	.34	.45	29.3
Missouri	.39	.61	29.6
Minnesota	.42	.45	28.8
Michigan	.62	.57	26.6
Iowa	.64	.51	19.5
Ohio	.77	.60	29.9
Indiana	.79	.58	17.5
Washington	.89	.49	35.2
Oregon	.95	.61	35.2

TABLE IV.—STATES HAVING HIGHEST PERCENTAGE OF HOSPITAL DELIVERIES WITH THEIR INCIDENCE OF CESAREAN SECTION AND MATERNAL MORTALITY, EXCLUSIVE OF SOUTHERN STATES

State—1934	Births in hospitals	Incidence of cesarean section	Maternal mortality
Connecticut	59.2	1.53	.47
New York	57.2	1.34	.53
District of Columbia	57.0	.98	.38
Rhode Island	51.7	1.16	.55
Illinois	50.5	.97	.52
Massachusetts	50.3	2.05	.54
New Jersey	46.9	1.01	.53
California	39.2	2.00	.43
Pennsylvania	37.7	1.01	.58
Oregon	35.2	.95	.61

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during the operation, and if the surgeon were forced almost to strangulate the degenerating muscle before all bleeding was controlled. Firm peritonization of the uterine wall is impossible in the classical operation. There are fewer objections to the low segment type cesarean because the uterine contractions about the incision are less severe, the involution is less marked in the region incised, and peritonization can be obtained by the bladder flap. Yet it appears as if this operation was almost unknown or not acceptable to the majority of physicians who are performing cesarean section because from 60 to 80 per cent of all cesarean sections in the mortality studies were of the classical type. Moreover, conservative classical cesarean section was performed innumerable times upon patients and reviewed in the mortality studies who had potential or actual infection as attested by many vaginal examinations prior to delivery and even after ineffectual attempts to deliver vaginally. The radical or modified Porro operation was rarely used in spite of the fact that the contra-indications to the classical cesarean section in such cases has been established for nearly 30 years, and the classical work of Frank, of Routh, and of Holland permits no controversy.

Long before Saenger and now many years after, the classical cesarean operation has been one of the most hazardous procedures in common use. Yet at least yearly for nearly 40 years, some advocate of this operation brings forth his claim that when the case is well selected for operation, the mortality should be as low as in any other elective surgery. That well may be, but it has never been demonstrated as a fact in any series of at least 500 clinic cases. On the other hand, the surgical mortality is becoming less and less in other gynecological surgery with improvements in technique and better selection and preparation of cases. There are many surgeons listed in our membership who have performed more than 500 hysterectomies for fibroids with considerably less than .8 per cent of surgical operative mortality. The low or cervical type cesarean section promises better things, yet only Adair's clinic in the University of Chicago has a truly low surgical mortality in a series so

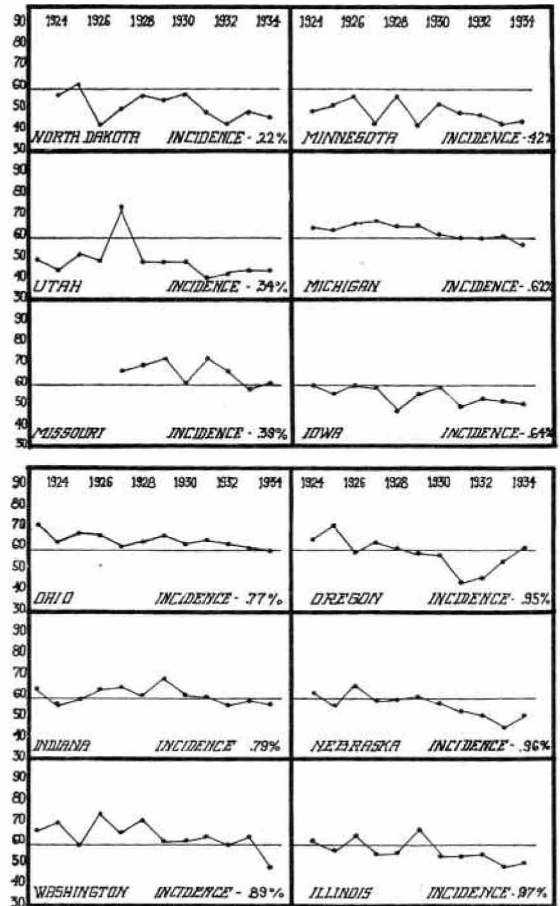

Fig. 4. Maternal mortality of states with lowest incidence of cesarean section.

large that the low death rate could not be unduly distorted by a comparatively few deaths occurring in the next 50 or 100 operative cases. His series stands alone with 1 per cent uncorrected surgical mortality and 500 consecutive low cesarean sections. Some fairly large series of cesarean sections in private cases also have low surgical mortality rates, yet serious emergencies and patients who elsewhere have had ineffectual attempts at delivery are far less common in private than in clinic series. The obstetrician who compiles a large series of his clinic and private cases is most likely to find that the surgical mortality in his clinic cases is disagreeably high.

The mortality attending cesarean section before 1930 has been cited in numerous studies

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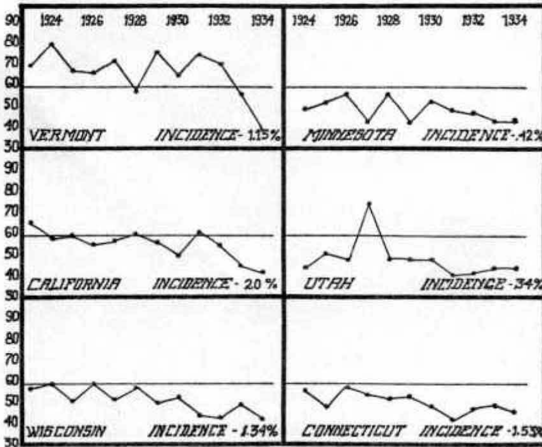

Fig. 5. States with lowest maternal mortality and their incidence of cesarean section.

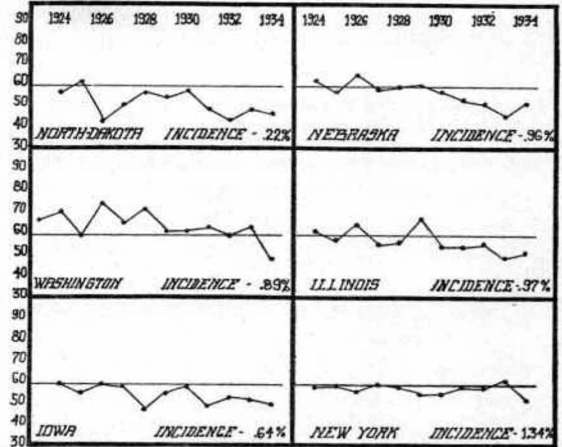

Fig. 6. States with lowest maternal mortality and their incidence of cesarean section.

and needs no review. For him who believes that the operative mortality must be lower now than formerly, I have collected the essential facts of the larger series reported in the literature of the last few years and operated upon since 1930. To these I add the following studies reported this year: Thompson's figures dealing with cesarean section in Los Angeles County; Bell's figures on the incidence and the mortality of cesarean section in San Francisco, Oakland, and Berkeley; and the report of Calkins, Mengert, et al. reviewing 559 cesarean sections performed by 132 members of the Central Association of Obstetricians and Gynecologists. In the total series collected, there were 524,117 women delivered, and of these deliveries 12,955 were by cesarean section. In this series, the incidence of the operation was 2.5 per cent and the surgical mortality was 4.1 per cent. There is small but unavoidable error in this compilation because of a small percentage of duplication of cases in the Chicago statistics, and because more than one-half of the cases are computed in terms of delivery rather than of live birth (Table V).

The various operative mortality rates in Table V as a group are very high. Four range between 0.7 and 2.5 per cent; 7 are between 3.3 and 7 per cent. Their meaning, however, can best be expressed in terms of the mortality rate of the cesarean section in relation to all deliveries in the series irrespective of method. When the figures are so expressed, it becomes evident that, though 7 per cent of the 900 women in Iowa who were delivered by cesarean section died, nevertheless the mortality rate of cesarean section in relation to the entire 91,738 deliveries was only 0.07 per cent. One may also see that the cesarean operation created a general mortality rate of only 0.07 per cent for the 61,513 women who bore children in 1934 and 1935 in Los Angeles County, and rose gradually in other places to attain the high point of a mortality from the operation of 0.14 per cent for the 68,733 parturients in Philadelphia. This is in spite of the wide variations in the percentage of deaths following the cesarean operation: 7 per cent in Iowa, 2.5 per cent in Los Angeles, and 5.5 per cent in Philadelphia. The series from Akron, Margaret Hague Maternity, and the most excellent report of Stander cannot be considered as individual units in this review because they present too few cases for statistical purposes. They clearly indicate, however, trends of cesarean section in their various hospitals.

Table V shows that the deaths following cesarean section created a maternal mortality rate of 0.1 per cent (10 deaths per 10,000) in the 524,117 women of the series studied. The figures assume added meaning when we recall that the maternal death rate of the United States is .6 per cent (60 deaths per 10,000), and is composed of rates of 20 per 10,000 for

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TABLE V

Cesarean section—1930–1935	Births	Cesarean sections	Incidence cesarean per cent	Operative mortality of cesarean per cent	Maternal mortality of C.S. in terms of total deliveries per cent
State					
Iowa—1930–1932	91,738	900	.98	7.0	.07
County					
Los Angeles—1934–1935	61,512	1702	3.0	2.5	.07
Cities					
New York—1930–1932	181,097	3963	2.19	6.1	.13
Philadelphia—1931–1933	68,733	1775	2.6	5.5	.14
Chicago—1934	33,338	951	3.1	3.7	.11
San Francisco Bay Cities—1932–1935	37,303	2118	5.7	1.7	.10
Akron—three hospitals—1930–1933	6,533	157	2.4	4.4	.11
Central Association—132 members—1935	12,061	550	4.6	3.3	.15
University of Chicago—1931–1934	17,493	500	2.8	1.0	.03
Margaret Hague Hosp., N. Y.—1931–1933	8,852	177	2.0	3.99	.08
Women's Clinic of N. Y.—1932–1934	5,456	153	2.8	0.7	.02
Totals	524,117	12,955	2.5	4.1	0.10

the dead under 7 months' uterogestation, and for 40 per 10,000 for those in the last trimester. So we see that in the United States the deaths following cesarean section constitute approximately one-fourth of the maternal deaths from all causes after the seventh month of pregnancy. The death rate from cesarean section (0.1 per cent) in this series of 524,117 deliveries is one-third of the maternal death rate from all causes and from all periods of pregnancy for the countries of Sweden, of Norway, of Italy, or of Japan.

It would seem that an operation that carried a surgical mortality rate of 4 per cent would never be performed except for the most compelling indications. The literature does not support this view, probably because most physicians feel that they can do their surgery with less than the average surgical mortality rate. Separate and distinct from the many cases in which the indications are compelling and the operation is truly life saving, I find an ever growing list of cesarean sections performed for no obstetrical indication. Thus, I find reported cases "on demand of the patient," "wish of the family doctor," "economic reasons," "to preserve a normal pelvic outlet," "a recent vaginal repair," "repeated attacks of false labor," "fetal distress," "premature rupture of the membranes without labor pains although the pelvis is not contracted or abnormal," "no indication," the physician's own statement in responding to a questionnaire, as well as many patients in whom the desire for sterilization entered prominently into the indications. We are all offenders on this last count and the list is growing daily. Yet when sterilization is indicated it may be produced more safely on another occasion as Arnot, who reviewed my own cases so ably, has so clearly shown. Thompson reports 2 deaths in the 72 cases in which the operation merely offered opportunity to "cut the tubes." Other reports show high operative mortality rates in cases in which the indication for the operation was at least debatable. Multiple operations must add danger to cesarean section, just as they do to all other major surgical operations.

All physicians do not see the case the same way as is evidenced in a recent report. Two groups, each of 13 physicians, delivered approximately the same number of private patients in 1935. The first group stated in their replies to the questionnaire that they found cesarean section necessary twice only in 1,229 deliveries. The other group, members of the same special medical society, performed 166 cesarean sections in 1,229 cases. The reasons for operation may have been more compelling in second group. At any rate, there were 9 deaths among the 166 cases; an operative mortality rate of 4.8 per cent in spite of the fact that the incidence of cesarean section was 14.1 per cent.

CONCLUSIONS

1. The maternal mortality of the United States is unduly high.

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2. The incidence of cesarean section is rapidly increasing, yet has not lowered the maternal mortality in the United States.

3. The classical cesarean section is performed far too frequently by untrained surgeons, and by trained surgeons in the face of indications which experience has shown entails unjustifiably high maternal and fetal mortality. The low cesarean section cannot safeguard parturient women when there are contra-indications to the performance of a conservative cesarean section.

4. Careful consideration should be given to the indications for and the contra-indications of this operation and the best method of performing it. Its application should be limited to those cases in which valid reasons for its use exist.

5. To achieve such consideration and consequent limitation, the American College of Surgeons should restate indications for cesarean section valid at the present time, and instruct hospitals certified by its Board to permit the operation only after consultation with one of the chief obstetricians of its senior staff. Only by such means can the profession safeguard an operation which is at present a very dangerous procedure.

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Discussion

Dr. P. Brooke Bland, Philadelphia: Of all the major obstetric operations, cesarean section is infinitely the most grave. If it were generally realized that the operation is the most serious surgical procedure performed within the abdominopelvic cavity, there probably would be no occasion to plead for "more conservatism."

The maternal morbidity and mortality rate in this country, as well as throughout the world, following cesarean delivery, exceeds any other major operation performed intra-abdominally. If this truth, too, were generally known, we believe that it would serve as a deterrent to the promiscuous resort to the procedure.

Only with the turn of the century did articles appear in the literature advocating a conservative policy. The alarmingly high operative mortality of cesarean section certainly must be common knowledge, but it is not widely appreciated.

In an exhaustive analysis of the world's literature for the past two decades I found a series of 65 papers devoted to a general survey of postoperative cesarean section mortality.

In this series there were recorded 1,843,356 deliveries. Of this number 19,480 (1.5 per cent) were effected by the abdominal route and 1,269 (6.5 per cent) of the patients died. In some of the papers published in this country, the maternal death rate

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recorded was unbelievably high. For example, in the series reported by Bickel, of Indiana, it was 17.3 per cent. In the survey conducted in the city of New Orleans it was 16.1 per cent. Magnus Tate, of Cincinnati, Ohio, in his study reported a maternal mortality of 16 per cent. In a survey made in the state of Texas, it was 14.4 per cent.

In Europe the rate runs a deadly parallel and ranges between 6 and 7 per cent.

Moreover, it is incumbent to recollect that the operation is not only designed as a life saving measure for the mother, but the fetus as well. Since failure occurs with regard to the former, it is logical to assume that the baby sometimes succumbs. The loss of fetal life is by no means negligible. In the series of 1,843,356 deliveries with 19,480 sections recorded in this country and abroad there were 913 dead babies or a fetal mortality of 4.4 per cent. This feature, too, cannot be disregarded. It must be taken seriously into account in pointing out the hazards in all appeals for a more conservative approach to the operation.

Since not all cesarean sections are surgical emergencies, it cannot be successfully argued that the high maternal death rate is the result of an emergency measure. The electively performed or so called "clean" operation is by no means void of danger and takes its toll.

The chief factor, I think, conspiring to thwart a conservative attitude regarding the operation is its apparent technical simplicity and for the unwary herein lies a grave delusion and snare.

This misconception has not only led to its unduly frequent and unwarranted performance, but to its performance by those who are unable to apprehend its true indications and are inept in its technique.

For example, in a survey conducted by the committee on public health relations of the New York Academy of Medicine, in New York City, it was astounding to learn that patients were attended in pregnancy and labor, spontaneous and operative, not only by obstetricians and general surgeons, but also by almost every type of specialist known, including pediatricians, otolaryngologists, dermatologists, radiologists, ophthalmologists, pathologists, anesthetists, orthopedists, urologists, gastro-enterologists, neurologists, and psychiatrists.

Almost precisely similar observations were made by the committee on maternal welfare in a survey made in Philadelphia. In the Quaker City it is pertinent to mention that to the long list enumerated, the osteopath contributed his part. Certainly with regimentation of this sort a favorable concurrence of circumstances, so far as the patient is concerned, is wholly impossible.

From the foregoing, one may safely assert that there are too many obstetricians doing obstetric surgery who are not surgeons. Similarly there are too many surgeons doing obstetric surgery who are not obstetricians, and further, there are far too many *men and women* doing obstetric surgery who are neither obstetricians nor surgeons.

There are, besides, many other factors accountable for the undue frequency of the operation, as well as the high mortality it carries. In the whole realm of surgery there is no major operation less difficult to perform. Moreover, it is the most enchanting and spectacular of all major surgical procedures. It thus appeals irresistibly to the man with a flair for showmanship, the surgical exhibitionist, as well as those falling in the "bootleg" group and loosely inclined ethically. Besides there seem to be in this country far too many "insatiables," and a dearth of group A surgeons who really know when not to operate.

I heartily agree with Dr. Lynch in his plea for more conservatism in cesarean section. It is sorely needed, for not only are too many cesarean operations being performed, but still worse, the surveys conducted in this country and elsewhere show conclusively that far too many obstetricians, so called, are doing abdominal surgery who are not trained in surgical art. This feature has led to a great deal of chaos all along the line.

While no one will gainsay the importance of advocating a more conservative attitude with respect to cesarean section, it is, at the same time, most essential, I think, to plead for a more conservative, as well as a more rational, attitude in obstetric practice in general.

Dr. Edward A. Schumann, Philadelphia: The well considered and thoughtful paper of Dr. Lynch admits of no adverse criticism. One must agree with all his premises and I can only urge the widespread acceptance of his conclusions by the physicians of this country.

The tenuous indications upon which this major operation is often performed are little short of appalling, although one fact may be offered in extenuation. Abdominal surgery has become so safe and is invoked so generally for comparatively slight lesions that the peril in connection therewith is largely discounted by the profession.

The low mortality of appendectomy, cholecystectomy, and gastric enterostomy has produced a surgical state of mind among physicians generally, and as a result cesarean section is utilized much more freely than formerly.

It is also true that there remain many obstetricians, highly experienced and competent in vaginal delivery, whose surgical equipment is entirely lacking, and who limit their abdominal operative work to the occasional cesarean sections arising in their practice. Men who would not attempt a hysterectomy for fibroid or the simple removal of a ruptured tubal pregnancy will unhesitatingly perform abdominal hysterotomy.

In evaluating the statistics of cesarean section, I am continually impressed with the necessity for dividing the cases into elective section and those of necessity, performed after vaginal delivery has proved impracticable. Practically all of the published figures are based upon the total number of operations, without regard for the time of their performance or the state of the patient at that time.

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To group together, for mortality statistics, the cases of purely elective section done for moderate disproportion, before the onset of labor, without vaginal contamination and under local anesthetic, with cases of the same operation performed after vain attempts at forceps delivery, in the terminal phase of eclampsia, on women exsanguinated from abruptio placentæ, is not only futile but foolish.

The purely elective section is one of the safest abdominal operations and should not be attended by mortality higher than that which occurs in invasion of the peritoneal cavity for any purpose. This type of section in the hands of trained men may properly be performed not only as a life saving measure, but to avoid vaginal delivery which may prove mutilating to the mother and perilous to the baby because of disproportion or, indeed, certain types of malpresentation. On the other hand, the too late hysterotomy, and even the presumably elective operation, done when the moment of election has passed and by men untrained in the niceties of gynecological surgery, spells disaster.

In evidence of my strong support of Dr. Lynch's views an analysis of my own clinic is presented.

The Kensington Hospital for Women is a small institution, serving its district in that no obstetrical patient is refused admission, whether registered or not and regardless of her condition. During the past 5 years there have been 4,683 deliveries in this hospital with 58, or 1.23 per cent, cesarean section for all causes. This includes cases of ruptured uterus sent in from the outside, decompensated cardiacs, and obstructed labor of all types as well as the selected cases from our own prenatal service. The gross mortality was 3.45 per cent and it is an interesting commentary that in neither of the two women who died could the section be ascribed as even contributing to the fatal termination.

One case was that of a patient with abruptio placentæ who had total suppression of urine before operation and who died of uremia on the second day after a section under local anesthesia. The second case was that of a woman exsanguinated from placenta praevia centralis hemorrhage, in whom the cervix was long and canalized and undilated. This woman would have lost her life by any method of delivery, and the rapid section under local anesthesia, after a blood transfusion, certainly did not lessen her chances for recovery.

All the other patients in this series recovered, so that one may fairly say that cesarean section or its consequences was not responsible for a single fatality in 5 years.

To summarize my own views upon this most important subject:

1. The elective section under local anesthesia, done by one well skilled in abdominal surgery, carries with it a negligible mortality and morbidity and offers a better end-result for mother and child than does a traumatic vaginal delivery, in untrained or even competent hands. The corollary to this observation is that patients should be carefully studied prenatally and when disproportion exists, the woman should be referred to a trained man for his opinion, which should be confirmed by roentgenological pelvimetry before the onset of labor, and that if section is determined upon, it should be performed by some competent person.

2. In cases of potential or actual infection some one of the extraperitoneal operations should be practiced invariably.

The attention of the profession should be sharply called to the laxity now prevalent in deciding upon the indications for this formidable procedure, and to the lack of adequate training of many of its proponents. In this connection it may be said that the American Board of Obstetrics and Gynecology is working whole heartedly toward the better training and more complete specialization of practitioners of the art of obstetrics.

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