Am J Obs Gyn 1929 V-17

THE TEACHING OF OPERATIVE OBSTETRICS*

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DURING the last few years the writer has been greatly interested in the number and variety of articles in the literature on obstetric mortality and morbidity. Comparatively few journals on obstetrics or on medicine in general are being published which do not contain someone's view as to the cause of our glaring failures.

Articles on needless obstetric operations, improperly chosen operations, unskillfully performed operations, poor training in obstetrics, high maternal and fetal death rate, etc., are appearing regularly and frequently.

A very careful collection and study of these essays reveal a great deal of destructive and but little constructive criticism. They give us a carefully developed diagnosis with but little or no suggestions as to treatment. We all must admit there are many causes contributing to our very undesirable rank among civilized nations in our obstetric results. We all admit that the remedy is not to be found in the solution of any one problem. There can be no doubt that the midwife as she exists in America is a menace. Very few of our schools have given obstetrics a proper rating in the curriculum. Many schools are poorly equipped to teach obstetrics. The laity is poorly informed as to the importance of child bearing. It is possible that some of our high ranking obstetricians are teaching major obstetric surgery in a way that misleads and misguides the poorly trained obstetric attendant.

The writer is ready to admit that all these factors and many others have a bearing upon the very unsatisfactory progress but wishes to direct attention especially to our present way of teaching operative obstetrics and to suggest some changes.

Many authorities have shown that approximately 35 per cent of the young doctor's practice is obstetrics, whereas only about 4 per cent of the four years' course in medicine is allotted to the obstetric department.

On the other hand surgery which will be represented by about 5 to 10 per cent of the recent graduate's time, is given 18 per cent (exclusive of the surgical specialties) of the teaching hours. We all realize furthermore that almost all the general surgery coming to the young physician is minor in type.

Yet this same young physician is presumed to be competent to do at least all ordinary obstetric operations.

*Read at the Forty-first Annual Meeting of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Toronto, Ont., September 10-12, 1928.

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The Committee on Maternal Welfare has repeatedly given us all these figures and has demanded a remedy.

Many authorities, among them Polak, Newell, E. P. Davis, Lynch, Rowland, and others have insisted that the general practitioners are doing too much obstetric surgery.

The Committee on Maternal Welfare says: "It is not expected that the general practitioner shall do cesareans and other obstetric operations," but the writer maintains that he *is* doing far too much operative obstetrics. The young doctor may not often be doing cesareans, but he is quite generally doing forceps deliveries, internal podalic versions, craniotomies, episiotomies, third degree repairs, and in fact ordinary perineorrhaphies, and has only an inadequate training.

A few years ago the writer investigated the obstetric departments of a number of our leading schools and found that most of the teachers admitted that comparatively few of their students ever assisted at a forceps delivery.[1]

Is our teaching correct in this respect? Is it right that we should deliver a few high sounding lectures on the history and development of the obstetric forceps and describe and display the various types of instruments and their different locks and parts? Is it right that we should didactically orate on the indications and contraindications and manner of applications without these well-delivered lectures being supplemented by opportunities for the student to develop his ability to use an instrument which is fraught with so much danger?

There will be some who suggest the manikin. We accept the manikin as a very great addition to our teaching armamentarium, but it falls far short of a demonstration on the living patient.

A great deal can and must be taught by individual instruction in the many obstetric procedures on the manikin, but this is only an introduction and should be used to lead up to the same operations upon the living patient.

There is a very important place in our curriculum for manikin demonstration, and in many schools it is being used very advantageously, but it can never be a substitute for the woman in labor.

Teaching operative obstetrics from the lecturer's platform is apt to leave the student under the impression that obstetric surgery is simple and easy.

At least we are confronted with the fact that the average neophyte in medicine has little hesitancy in attempting any ordinary obstetric operation without assistance and often in the patient's home, using any available woman or other layman as an anesthetist.

Are we properly dignifying obstetric surgery? We have all had much to say in recent years about obtaining proper recognition for the general subject of obstetrics. Most of us feel that there should be three and only three major departments in our medical schools—*medi-*

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cine, obstetrics, surgery. We have advocated this in many ways and have sometimes gained ground, although just now there seem to be some obstacles to progress.

It must be admitted that before we can hope to give a thorough practical course in operative obstetrics to undergraduate students, we must have much more time allotted to us in the curriculum and much more and better clinical facilities than the average school possesses.

We cannot overlook the fact that at present we have none too many hours to teach the physiology of so-called normal pregnancy, labor, and the puerperium.

Our students must be thoroughly drilled in obstetric physiology. They must be carefully taught to distinguish between the normal and the pathologic. They must be instructed in detail as to the value and importance of prenatal care. They must be taught the fundamentals of obstetric pathology and how to recognize and treat the many deviations from normal physiology. And all this requires time. In fact it requires so much of our present number of hours that we have not the time left for a proper teaching of obstetric operations.

Furthermore, very few clinics approach in size the number of cases necesary to teach operative obstetrics to the average sized class. The teaching capacity of an obstetric patient is greatly limited. Not more than one or two students can secure any valuable instruction in an obstetric operation on one patient. Obstetric operations can rarely be scheduled. The student is not always available at the proper time. For these and other reasons it requires a very large number of obstetric patients to secure adequate teaching in obstetric surgery to an average class of students.

A clinical amphitheater is a help, but merely observing obstetric surgery is not enough.

A combination of obstetrics and gynecology under one head makes for better teaching of both subjects. Obstetrics in its modern and broader sense should include all obstetric operations and pelvic surgery. All else should go to the department of general surgery. Normal obstetrics, obstetric operations and pelvic surgery are inseparable. No one can be considered competent in gynecology who is not thoroughly trained in obstetrics, nor is one properly trained in obstetrics who has not the ability to handle all obstetric operations.

Hence from a pedagogical standpoint we should not recognize any independent department of gynecology.

There has been marked progress in the last two decades classifying surgeons. The laity now rather generally demands that some one other than the general practitioner shall be called upon for surgery. The College of Surgeons and other influences have done great good in attempting to ascertain who is competent to do major surgery. A very large part of obstetrics is surgery, and surgery of the greatest impor-

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tance. The obstetric surgeon is practically always entrusted with the lives of two patients rather than one.

Shall he be permitted to stumble ahead in this important field with little or no training? Will we continue to permit the laity as well as the young graduate to believe that he is not quite equal to an appendectomy but is able to assume immediate and sole responsibility for major obstetric surgery? Whether the question is answered yes or no, the fact remains that just such a condition exists at this moment, and there seems to be some apathy about finding a remedy.

A recent writer attempts to explain our high fetal and maternal mortality by suggesting two causes.[8] "Ignorance on the part of the public of the dangers connected with childbirth and the need of skilled care and proper hygiene to prevent them, and the difficulty of securing proper obstetric care—and that the public still regards childbirth as an entirely normal process. This has reacted on the medical profession, producing low fees, so that, with the exception of the city specialist, obstetrics has become the worst paid, although most difficult and exacting branch of medicine."

Newell recently gave us food for much thought when he reported the astounding obstetric mortality in Massachusetts and showed that a large part of it was the result of needless obstetric surgery and the attempt of poorly trained operators to do major obstetric surgery.

The average practitioner is not competent to handle a severe case of postpartum hemorrhage, placenta previa, prolapsed cord, abruptio, or contracted pelvis. He may be and often is able to make a fairly accurate obstetric diagnosis and probably could write a good outline for treatment but will frequently be quite incompetent to carry out the proper obstetric operation.

At present the teaching in surgery and gynecology is mainly to develop the student's ability in diagnosis, while little effort is made to teach operative precedures, since it is not presumed that the new graduate will go out and do major surgery before he takes special training. Only last year our retiring president admitted that our graduates are not properly equipped to do obstetric surgery.

Dr. Polak[2] says the average graduate is a "fair midwife, nothing more."

Holmes[3] says, "The fact that the death rate among emergency cases (that is, those sent in by medical attendants) is over 10 times that of regular applicants in the New York Lying-In Hospital is a reflection on the preliminary medical training of the profession." He further states that the proper place for the study of obstetric surgery is in postgraduate courses intended for those preparing for the specialty. But this latter statement overlooks the fact that a very large number of women are still being delivered by the general practitioner and not

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by those specially trained in obstetrics, and that there are comparatively few places where advanced obstetrics can be studied.

The writer in a former paper[4] advocated more specialists in obstetrics. It would be a distinct advantage if more trained obstetricians were available at least as consultants. We realize it is a great misfortune when the family doctor in need of a consultant is compelled to call a general surgeon. Except for cesarean section alone, the general surgeon is rarely any better obstetrician than the family doctor and usually falls far short of the ability to ascertain the indications and contraindications even for cesarean section. If more trained obstetricians were properly distributed over the country and if the laity and medical profession were cognizant of their ability and availability, they would supply a very definite deficiency and fewer needless and unsuccessful obstetric operations would be performed.

But what are the opportunities for such training? The number of positions available to men who wish to make a special study of obstetrics are still very few. In 1921 it was shown that many men were clamoring for such opportunities,[5] and the condition has been but little bettered since.

In Sweden a six months' residency in obstetrics is required.

E. P. Davis says, "Of the medical profession the general practitioner is the greatest danger in obstetrics," and that "He must do obstetrics to keep the family and he must do obstetric surgery because his colleagues do."

Stoeckel[6] reports 55 cases where obstetric operations were instituted in the home and failed. Thirty-nine of these were high forceps and no indication in 37. Twenty-seven babies died; 4 mothers died.

In London the Committee from the Royal Society of Medicine states that "The general practitioner tends to regard himself as an obstetric specialist and feels that to call in a specialist is a confession of weakness or failure." They further state that "meddling through is a prevalent practice and it is legitimate to trace it in some measure to training in practical midwifery." This would seem to indicate that conditions are no better in London than in America.

A recent American writer[7] says that 10 per cent of our obstetric deaths are the direct result of operations.

Some will say that obstetric surgery must be taught during the intern year. Possibly this is correct, but we meet with at least two difficulties. First, there are a few graduates still who go into practice with little or no internship. Second, a very large number of our so-called acceptable hospitals have but few obstetric cases, and many times these are private cases or are handled by men not trained in obstetrics so that the obstetric service would be of little or no real value to the intern.

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DR. A. M. MENDENHALL, Indianapolis, Ind., read a paper entitled **The Teaching of Operative Obstetrics.** (For original article, see page 583, April issue.)

DISCUSSION

DR. JOHN O. POLAK, BROOKLYN, N. Y.—This paper is of interest to me because Dr. Mendenhall has taken the position I have always opposed. I do not believe we are justified in teaching operative surgery to the undergraduate, neither are we justified in teaching operative obstetrics beyond a certain point. At the Long Island Medical School we have, by cajoling and flattering our physiologist into the belief that there is such a thing as physiologic obstetrics, succeeded in getting the third trimester of the sophomore year for the physiology of obstetrics. This time is entirely devoted to manikin instruction in diagnosis and the physiology of pregnancy and the mechanism of labor as we believe it should be taught so far as one basic principle is concerned, namely, that nature is competent normally to effect delivery and that there is no operative procedure justifiable until the passages are thoroughly opened by the physiologic processes. We have insisted upon that and have finally gotten some results.

In the third year our students have a manikin course given on the method of version, breech extraction and the application of forceps. That is where I believe the limit should be. I believe every graduate should be trained in doing version and in low forceps and in breech extraction. There is no such thing as high forceps operation. The slogan "Don't pull, you guide, she pushes," is basic in breech extraction.

The next important point is that the usual hospital residence of four weeks for the undergraduate is altogether too short a time, for he should have eight weeks, or the same time allotted to surgery. We can only accommodate our men for four weeks' residence in obstetrics. They work in the outpatient and prenatal clinics, which gives them opportunity for diagnosis, the recognition of contracted pelvis, and dystocia. We try to impress upon them that when there is a condition of dystocia they must have help, or if they have not help they must depend upon their own resources. Although our men are getting from 20 to 70 cases, we feel that they are going out incompetent if we compare their training to the midwife training that is given in Europe where the midwife delivers a minimum of 200 cases. The most we can do is to give them a thorough manikin training, perhaps one low forceps application under guidance, and a relatively long training in diagnosis and indications. My personal feeling is that no man is competent to do obstetrics outside of low forceps and breech extraction who has not had a hospital residence. An interne training of three months or six months is too short. It is only at the end of a year that our men actually recognize conditions and show good judgment, and that is the reason we have established a four years' residency. It is unfortunate that the majority of these young men would rather starve in the city than go into the country districts. The only thing that teachers of obstetrics can do, as far as I can see, is to teach these men the physiology of labor, to recognize the cervix when it is dilated and never under any circumstances to apply forceps or do a breech extraction until it is absolutely necessary.

DR. L. A. CALKINS, CHARLOTTESVILLE, VA.—I am going to reiterate some of the things that Dr. Polak has just said, perhaps in a little different way. My idea of teaching obstetrics has been that if we emphasize the physiology of obstetrics we have done the best we can do for our undergraduates; on the pathologic side, if we teach them the indications, and more particularly the contraindications for operation, that is about as far as we can go. If we attempt to give more operative obstetrics than breech presentation, forceps, and version, we will put in the mind of

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the student an undue emphasis on the operative side, something which we have all been trying to avoid. I believe in our limited curriculum we will have to be satisfied with this small amount of operative teaching.

Dr. Polak said there was no such thing as a high forceps operation. Perhaps there is not in Brooklyn, but there is south of the Mason-Dixon Line, and we have considerable difficulty in impressing upon our students that it is a relic of the dark ages.

DR. M. P. RUCKER, RICHMOND, VA.—What Dr. Mendenhall and Dr. Polak have said is entirely true from the standpoint that we cannot in our teaching of obstetrics tell students exactly what to do in any given case. They may know what to do generally but when confronted with the particular patient they have not sufficient judgment. The mechanism of labor and later on the use of forceps can be taught on the manikin, but that does not equip the student to apply forceps on the patient.

I would like to see one or two things done. We must teach the public that an M.D. degree does not qualify a man to practice obstetrics, or we must give our graduates some further instruction in obstetrics, not necessarily operative obstetrics, but clinical instruction so that they will recognize these cases of dystocia without having to look in a textbook to memorize how to control them. It is rather useless to turn a man out of the medical school with a lot of rules in the back of his head who will not know when he looks at a patient what her condition is. I think the important thing is to agree before we consent to graduate a man that he shall be given a practical examination so that he will know when the cervix is dilated.

DR. WILLIAM T. MC CONNELL, LOUISVILLE, KY. (guest).—The subject of obstetrics has been held on such a low plane by both the laity and the profession that the recent graduate is expected to be able to do all ordinary obstetric operations. It seems to me that under these circumstances it is difficult for him to refuse to do these operations, and so he does them with the result that the gynecologic surgeon reaps a rich harvest later from these patients. Therefore, it devolves upon us who are teaching this subject to impress upon these students very profoundly that operative obstetrics is a serious and a difficult procedure, that it should not be undertaken by men who are not equipped to do this work.

I, personally, am glad to notice that in our section of the country operative obstetrics is coming more and more to be considered a surgical proposition. It is very difficult for men with the training that we now give to become proficient in forceps operations. They can see the operation and yet not know how to do it because we are working in a hidden field. The only way to become skillful is to do the operation under supervision.

DR. JAMES E. DAVIS, ANN ARBOR, MICH.—One side of this subject has not been sufficiently emphasized, namely that there is a problem here in pedagogical economics. When one looks at the different curricula of Class *A* schools one finds there are unnecessary repetitions in different subjects; one teacher repeats what another one has taught or could teach better. One finds in almost all schools that there is seldom a dean who will take the time and trouble to go about through the different departments of his school to learn where economy of time might be secured. Attention was called in one of the letters quoted by Dr. Findley to the fact that too much time was given to pathology. All are aware that the pathologist can and should teach much of the pathology of obstetrics. It does not follow that the pathologist fulfils this duty, but I do not see how one who is teaching general pathology should escape from giving a great deal of attention to the pathology of obstetrics. Neither should the teacher of physiology escape from giving a great deal of attention to the physiology of obstetrics. It seems to me that before we

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secure an adequate remedy for what we have been talking about at great length this problem must be directed to the deans of the schools in order to get a proper adjustment of the attention to be given by the different teaching members of the faculty. If that is properly done the problem resolves itself into one of a sufficient number of hours for clinical attention to the subject.

There are so many hospitals where the obstetric service is very large. In Detroit we have no less than three hospitals with over 100 obstetric cases per month, sufficient to give each student more than 100 cases in a short period of time.

DR. A. J. RONGY, NEW YORK CITY.—We were told by Dr. Sadlier yesterday that in New York one out of 171 women die as a result of childbirth. I have discussed this problem for many years, and it seems to me that the solution does not lie entirely in the teaching of obstetrics in undergraduate schools. No matter how much we teach these men we will not make obstetricians of them. I think the fault lies chiefly in the hospital system in this country. I am at present engaged in helping to draw up plans for a new hospital. When I made a plea for a larger obstetric service, I had difficulty in convincing the board of managers that the obstetric department is as important as the medical or surgical. I was finally able to influence them to give at least 20 per cent of the hospital beds to the obstetric service. When we realize that most of the large hospitals throughout the country afford no opportunity for their intern staffs to be trained in practical obstetrics, we possibly can account for the incompetency that prevails in this branch of medicine. I think this Association should undertake a campaign of education for the establishment of an obstetric department in every large hospital, so that the young physicians may be better trained in this field of work. In that way the morbidity and mortality associated with childbirth will be reduced to a large extent. I believe we should urge the American Hospital Association to take up this important question.

DR. MENDENHALL (closing).—I believe the only difference between Dr. Polak and myself is the question of inflection. His opening remarks would seem to indicate that we were differing in our opinions upon this subject, but we are not. I am happy to say that I have followed Dr. Polak's methods for a great many years and have planned my own accordingly. I would like to read the last sentence of my paper: "Shall we continue this unsatisfactory training, or shall we avoid all attempt at teaching major obstetric surgery to the undergraduate and compel him to obtain this training later?" I am reminded very much of my last lecture by Dr. deSchweinitz. He said "You are not ophthalmologists. I hope I have taught you a little ophthalmology and a little diagnosis." I feel that in obstetrics we are allowing our students to go out and do obstetric surgery whether they are properly trained or not. I agree with Dr. Polak absolutely. Under our present conditions we had better ignore the teaching of operative obstetrics entirely unless we can teach it more thoroughly and more completely than we are now doing. In Indiana we are making comparatively little effort to teach operative obstetrics.

Dr. Polak said that students have little opportunity to do a forceps delivery. That is true in many schools of America. We have not done the high forceps operation in the University of Indiana for eight years.

Economy of time was mentioned. All the departments want more time, of course. It is our duty to impress upon the deans of our schools the relative importance of obstetrics. Dr. Davis' remarks might be somewhat misleading. He spoke of the opportunity of students to *see* 150 cases of obstetrics per month. That is what I am talking against, for *seeing* these cases does not make the student an obstetrician. We can *show* them plenty of cases but they do not have the opportunity to take care of the work themselves.

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