

Obstetrical Department.

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Original Articles.

The Study and Teaching of Obstetrics*.

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CHILD-BEARING, though a physiological function, is not without danger to both mother and child.

Danger arises from two distinct sources: The first is external to the mother, and depends upon her environment, her safety being menaced by infection that may occur during gestation, during labor and during the period of the lying-in. The second source of danger is internal in nature and belongs to the woman herself, growing out of conditions that make the passage of the passenger unsafe or impossible. It finds expression in faulty development of the parts concerned in parturition, by accidents of mechanism and faulty physical development for which our modern civilization is largely responsible.

It is the obstetrician's sacred office to avert these dangers whenever possible, and he averts them in direct proportion to the knowledge and skill at his command.

The treatment of the first source of danger must be prophylactic and remedial, while that of the second source must be mechanical and includes a wide range of surgery. If a perfect prophylaxis is observed, remedial measures will fall into disuse, while a thorough knowledge of and training in the second will contribute greatly to the safety

of child-bearing. To make obstetrics a stepping stone to some other branch of surgery is fatal to skillful obstetrics.

The responsibility of the situation is too great for make-shift practice. The subject and its practice requires the earnest devotion of a life-time with a commensurate erudition in all branches of practical medicine.

In the last decade, obstetrics in our country have had a marked uplifting. Our best medical schools are giving the subject more attention than ever before, and students are asking for greater facilities for practical work.

In schools requiring a four years course the subject may be profitably graded, to consist of a junior and a senior course. For the junior course only normal obstetrics should be studied. This insures a reasonable amount of time for *drill* in the fundamental principles of the subject, and lays the foundation for future careful and conscientious practice.

Before entering upon methods, a few words regarding the qualifications essential in the teacher, may not be out of place.

First of all, the teacher must be thoroughly in love with his chosen work; he must be a student, coming in close and sympathetic touch with his students; he must be always the interested, enthusiastic student-teacher, carrying his pupils with him as willing followers. In his practice of obstetrics, each case, though he may have seen hundreds, should be studied with undivided attention. Each phase and feature carefully observed, renews, adds too and keeps freshly filled the store house of experience, from which he is to draw daily supplies for his pupils with a generous and unselfish mind and heart. Time may be saved to teacher and student by the use of a good text-book. To instil life and interest into the recitations, the teacher should amplify as far as possible the text of each lesson by drawing upon his own experience and by demonstrations, made with fresh and preserved specimens, and by presenting the living subject. The most important feature of the work for the first semester should be the pelvis, dynamic and static with pelvimetry and diagnosis from early gestation to the time of labor.

During the work of this semester, the student learns to recognize a normal pelvis from an abnormal by demonstrations upon the static pelvis and by measurements made by

himself on the living subject. He learns the use of the pelvimeter and its disadvantages; he learns how to make a diagnosis of position and presentation by external palpation; he learns symptoms and signs of pregnancy of the first, the second and the third terms of gestation; he learns to estimate with a degree of correctness, the intra-uterine age of the embryo and the foetus by the stage of development attained at the time of expulsion from the uterus or the time when it perished in utero, before expulsion. This he learns best by means of specimens given him for examination in connection with his recitations.

At the end of the first semester he is ready to begin the work of the second, which includes the mechanism, the management and physiological phenomena of normal labor, together with the management of the lying-in period and the care of the new-born. He also learns the technique of asepsis in every detail, and the use of disinfectants and antiseptics, for himself and his appliances, for his attendants and for his patient.

At this time drill upon the manikin prepares the student for observing and taking charge of normal labor cases, under the personal supervision and instruction of a clinical demonstrator. At the bedside he now learns to apply and verify what he has learned from his text-book and from his teacher in the class-room and in the clinic. The drill upon the manikin, with the normal foetus, or with the dummy, is of supreme importance to the student. He sees and understands for himself the wonder inspiring process of accommodation of the foetal diameters to the pelvic diameters. He begins to accept as demonstrable truth what seemed before only half truth and is willing to repeat again and again his assigned task, for he is beginning to love his work and desire its mastery.

After the student has become thoroughly conversent with the mechanism of First Position Vertex he may begin to study departures from this first and normal standard. The second position head, with its anterior and posterior positions, to be followed by the varieties of head presentations in which delivery can be spontaneous. Breech presentations and their varieties should be taken up and studied in their proper order. During these different exercises upon the manikin, the student should be taught the judicious

use of the hands in aiding spontaneous or non-instrumental delivery, such as aiding flexion when extension prevents progress; watching and aiding rotation forward in second positions of the head; aiding the delivery of the shoulders, and the different manual methods of delivering the after-coming head. Although manual obstetrics belong, more properly to pathological labor, its study here helps the student to a fuller appreciation of the different mechanical steps involved in normal delivery.

The student must not be passed over the manikin drill too rapidly or he becomes confused and fails to define important steps, one from another. Mastering each step as he advances, he becomes more and more interested in his work and studies his subject for itself and not for the forthcoming examination, which he should pass with credit at the end of the school session. The second or senior year should be devoted to pathological obstetrics. In order to place the student upon an independent footing, for which he has been prepared in the junior year, it is best to drop the use of any particular text-book for recitations, and to assign his lesson by topics. Having his topic, he is free to consult any text-book or book available.

By this method he not only gains a comprehensive idea of his subject, but he learns how to use his text-books and other available literature. It is surprising the amount of research an enthusiastic, intelligent student will accomplish by adopting this method of study.

Surgery of the puerperum, pathology of pregnancy and of the puerperum must receive due attention, while operative obstetrics is made a prominent feature of this year's work. Special attention should be given to the obstetrical forceps. No student should be allowed to leave his school without a safe knowledge of this instrument of infinite good and of infinite harm. This knowledge he will gain only by, first, the study of the instrument as a mechanical appliance, and second, by *drill* in its use on the manikin. The teacher should carefully guard the student against forming bad and careless habits in the execution of a forceps operation. How and when to make traction should be strongly emphasized and proper movements insisted upon. Whenever an error is committed the student should be required to correct it then and there, and be made to see his error and to under-

stand its correction. Beginning with low operations he learns coolness, deliberation and the methods of making proper traction. From low operation he is advanced to the medium, then to the high operation, learning in each the meaning of "axis traction". It is unfortunate for the students comprehension that "axis traction" is so universally used to mean high operations. All traction, low, medium, or high, must be axis traction, or traction in the axis of the pelvis. Hasty, jerky and impulsive movements made by the student should bring from his teacher reproof of no uncertain sound, though kindly given. A lack of knowledge of and *experience* in this important matter of applying the obstetrical forceps characterizes the work of the young, and sometimes the older practitioner, as clumsy and dangerous. Practical work in obstetrics should be required of each student before graduation, but never before he has laid a foundation for experience to enable him to apply what he has learned. He should be required to keep a systematic record for each case attended. The record should be comprehensive enough to leave no examination of the patient, medical or obstetrical, neglected or overlooked. This record sheet should make a part of the year's course and of the final examination. The requirement of record-keeping impresses the student with the importance of carefully supervising each case that comes to him for care, and it helps him to form systematic habits of thought and observation, that must contribute to successful practice and to the science of obstetrics.

In the pathological laboratory of medical schools, room should be made for the study of disease and unhealthy conditions so frequently met with in the pregnant and lying-in woman, with a view of determining causes that are now matters of dispute, or wholly unknown. With such training in the principals of obstetrics, the young graduate is ready to make the best use of clinical teaching in a maternity post-graduate school.