

TEACHING OBSTETRICS UNDER IMPROVED CONDITIONS.*

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SEVERAL factors render conditions for teaching obstetrics, in the reorganized Washington University Medical School, sufficiently favorable to enable the Department of Obstetrics and Gynecology to do reasonably good work alongside of the Departments of Medicine, Surgery and Pediatrics, all of which have been placed on a strict university basis.

The main reason for this desirable state of affairs is found in the friendly attitude of the Corporation of the University and of the Executive Faculty toward the Department of Obstetrics and Gynecology; both of these bodies appreciate the desirability of placing obstetrics likewise on a university basis, and they are determined to bring this about as soon as circumstances will permit.

In the meantime, they have made very reasonable provisions for this department by giving it reasonable laboratory space and by furnishing it with dispensary and hospital facilities unsurpassed anywhere; they have taken further care of the department by an annual budget, which provides effectively for laboratory and teaching supplies and equipment; the budget also provides salaries for one laboratory technician, one laboratory instructor, one resident physician, two assistant resident physicians, and a modest salary for the chief of the department. The department's house staff consists of one resident, two assistant residents, and three house officers; all six are taken care of in splendid officers' quarters; they receive their keep and laundry; but the house officers receive no salary.

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Before the reorganization of the school, the department was under considerable annual expense in maintaining its own museum and its own library; this expense is now entirely done away with, because the department of pathology takes care of all pathological specimens in an excellently furnished museum where they are, at all times, available for teaching or for investigation; in like manner, the splendid library of the medical school, which already contains over 23,000 bound volumes, and which receives 353 of the most important medical periodicals, of which over 300 are in complete series, makes it unnecessary for the department to expend money for library purposes. Laboratory guides, text-books and other publications, which the department desires for more or less continued use, are promptly supplied; in fact, during the summer vacation when the library committee is not in session, the heads of departments are empowered to order on their own judgment such publications as they stand in urgent need of to the amount of thirty dollars for each department. The school workshop is another time and money saving institution; it has proven especially helpful in keeping manikins and other teaching apparatus in repair.

The temporary quarters, which the Department of Obstetrics and Gynecology at present occupies, were placed at its disposal by the Departments of Medicine, Surgery and Pathology; I take particular pleasure in recording the fact that each of these departments gave up some of its very best space, so that Obstetrics and Gynecology are housed as comfortably as are Medicine and Surgery, and, were it not for the fact that these latter departments will, before long, need the space which they have given up temporarily, there would be no urgent need for a women's clinic, which the university expects to erect on the medical campus.

On this campus are located the North Laboratory Building and the South Laboratory Building, housing the departments of Anatomy, Biological Chemistry, Physiology, Pharmacology, Experimental Surgery and Preventive Medicine; the Dispensary Building, housing the Department of Pathology and Bacteriology on the two upper floors; the clinical laboratories (pathological, bacteriological, physiological and chemical) of the Department of Medicine on the second floor, and the Washington University Dispensary on the first floor and the basement; on the third floor are also the headquarters and laboratories of the Department of Obstetrics and Gynecology; on this campus are also located the Barnes Hospital, the Saint Louis Children's Hospital and the Home for Nurses; two private residences which were on the site before it became a medical campus, have been

arranged to serve as a temporary hospital for colored patients; plans have been completed and specifications drawn for the erection of a new pavilion for colored patients on a less conspicuous part of the campus; when this is completed, these former residences will be torn down, and the Women's Hospital erected on this site. All buildings on the campus are connected by corridors and tunnels and a central power plant furnishes light, heat, power, refrigeration and compressed air to all of them.

THE DISPENSARY SERVICE

The dispensary for women is conducted on the first floor of the dispensary building daily from 2 to 4 P. M. in the splendidly equipped dispensary rooms of the Department of Surgery, which uses these rooms in the forenoon only. The hearty coöperation of the Department of Nursing, and the Department of Social Service helps a great deal to render the dispensary service satisfactory to the patients and to the dispensary staff.

The fact that the dispensary hours fall in the afternoon makes it possible to detail one house officer and one assistant resident for dispensary duty, thereby reducing the burden on the chief of clinic and his assistants and compensating any irregularity in their attendance. This part of the service, however, is so important to the department and confers such benefits on the volunteer staff, that irregularities in attendance are very exceptional, and there is always a waiting list of competent men, who have grown up in the department and who are anxious to fill vacancies.

In the dispensary gynecological and obstetrical patients are segregated; the gynecological cases are treated or asked to enter the Barnes Hospital, according to the nature of the cases; the obstetrical cases are encouraged to come to the dispensary early and at regular periods. Besides the regular dispensary record, a special obstetrical record is kept, which remains in the care of the house officer on obstetrical out-patient service. A prenatal nurse, who is a salaried social service worker, and who is assisted by student-nurses, gives the expectant mothers necessary instruction at the dispensary and at their homes, visits them to ascertain their home conditions, and follows them up in case they fail to return to the dispensary as instructed.

Normal cases, whose home conditions are adequate, are delivered at their homes, unless they prefer to come into the hospital and are able to pay the ward fee; all other cases are recommended for admission to Barnes Hospital. When one of the cases registered for home

delivery goes into labor, a telephone call is transmitted to the house physician on out-patient duty; he details one of four senior students, who are on obstetrical service and who have comfortable quarters above the Womens' Colored Ward, to the case, and accompanies him or follows him as soon as possible; in daytime an obstetrical nurse (a senior student nurse) is likewise furnished. In case of serious complications a city ambulance is called and the parturient woman is transferred to Barnes Hospital as a free patient.

Women who are delivered at their homes receive postnatal nursing care, are regularly visited by the attending senior student and a house officer, and return to the dispensary for a final examination and formal dismissal at which time their baby is entered at the clinic for well babies conducted by the Department of Pediatrics; if they fail to return to the dispensary for this purpose, they are followed up by social service workers.

The work of the obstetrical out-patient service is controlled by an instructor, who sees to it that proper records are kept and preserved, and who drops in on the service at unexpected times to see that the patients receive the proper attention and visiting.

THE HOSPITAL SERVICE.

The admission of patients to the obstetrical and gynecological service of Barnes Hospital is the duty of the resident, or in his absence of one of the assistant residents, after the requirements of the front office have been complied with.

Barnes Hospital is not a free hospital, but an ample number of free beds are available in the following manner: Each of the three services is entitled to one free patient for every four pay-patients, so that if the obstetrical-gynecological service has twenty-four pay-patients, that service is entitled to six free patients.

Additional free beds have been made available by the liberality of Mr. Robert S. Brookings, the president of the University, who personally pays for twenty free beds each day of the year. The free beds are distributed as follows: Medicine eight, Surgery eight, Obstetrics four. This is a fair distribution made at the suggestion of obstetrics, because medicine and surgery have to take care of all the specialties; yet obstetrics wanted a free-bed-budget of its own which it can use to the following advantage:

The free beds allowed by Barnes Hospital, under the four to one rule, are all used up from day to day, and it would often be impossible to admit obstetrical patients on the free list when they come in as emergencies or when they are wanted for bedside instruction, were

it not that by arrangement with Mr. Brookings the 1460 free hospital days, provided by him for obstetrics, can be used up at the time when most needed, that is, during the session of the medical school. By using fewer than four Brookings beds per day during the early part of the fiscal year, a larger number than four are available during the school session.

All hospital cases, except emergency cases, are carefully worked up by the house-staff before being seen by the visiting instructors. The house-officers take histories, make physical examinations, do the routine laboratory work in the ward laboratory, enter the findings of instructors or of the chief on the record, have cases prepared for delivery or operation, assist in major operations and perform minor operations under supervision.

Two instructors make regular ward rounds and supervise the work; they are on alternating service; each serves six months on obstetrics and six months on gynecology; they submit written suggestions as to diagnosis and treatment in important cases, which are discussed in conference; they do considerable emergency work and also major operative work with the approval of the chief or his associate (Dr. Crossen).

All material obtained by operation, including curetments and trial excisions, is sent to the department's laboratory, where slides are prepared and filed away for permanent record; for the purpose of diagnosis in doubtful cases the Department of Pathology, which is located on the same floor, is freely consulted; a pathological diagnosis is sent to the ward in all cases and entered on the patient's record. Gross material, which is desired for permanent preservation, is turned over to the Department of Pathology, which attends to the proper preparation and cataloguing of museum specimens.

In case a patient dies, the consent for autopsy is usually obtained; members of the house-staff are present at the autopsy and attend the clinical and pathological conferences which the Department of Pathology conducts once a week. All clinical records are looked over at a staff conference before being sent to the record room for filing.

The house-staff rotates in the various duties as follows: each house-officer serves four months on the obstetrical house service; four months on the obstetrical out-patient service and four months on the gynecological house-service; the assistant residents alternate every six months; while one works in the histopathological laboratory of the department and in the dispensary, the other is on duty in the pavilion for private patients, performing the same duties to

private patients as the house-officers perform to ward patients; to this private pavilion service are admitted private patients of the chief of the department and of his associates in the service (Drs. Crossen, Gellhorn, Royston, Schlossstein, O. Schwarz and Taussig); besides these duties the assistant residents act as alternates to the resident, so as to have an admitting officer on duty at all times.

THE UNDERGRADUATE COURSE IN OBSTETRICS.

Since our students enter with two years credit in college work, which must include chemistry, physics and biology, it has been found feasible to simplify the course in the medical school and to devote the first year and the first and second trimester of the second year to anatomy, biological chemistry, physiology, pharmacology and bacteriology.

The next period of two years, that is, from the beginning of the third trimester of the second year to the end of the second trimester of the fourth year, is devoted to the main clinical branches, namely, Medicine, Surgery, Obstetrics and Pediatrics; the specialties are given comparatively few hours and those mostly in the dispensary service.

In this way the prescribed curriculum comes to a close at the end of the second trimester of the fourth year, leaving the last trimester or approximately eleven weeks for elective work; of this elective work not less than 150 hours must be taken in one of the four main clinical branches; the remaining 150 hours or more can be devoted to the specialties.

In the allotment of hours the curriculum committee has tried to keep well within the number recommended in the Model Medical Curriculum prepared under the direction of the Council on Medical Education of the American Medical Association in 1909.

In that curriculum 240 hours were recommended for Obstetrics and Gynecology, exclusive of the time spent in attending labor cases; I find these hours quite sufficient if the course can be properly spread out and balanced; our undergraduate course is divided into a Junior Course and a Senior Course of 121 hours each, and each course lasts exactly one year.

If at the end of these two years a student has failed to get a passing grade, he has the last trimester of the fourth year left for the removal of conditions.

THE JUNIOR COURSE.

This course consists of seventy-seven hours of recitations, twenty-two hours of laboratory work and twenty-two hours of exercises; in

diagnosis, besides considerable practical work in the dispensary during vacation between the second and third year.

RECITATIONS.

These are limited to eleven hours during the third trimester of the second year; they are delivered by the chief of the department and an effort is made to interest the student in the subject of obstetrics, to acquaint him with desirable text-books and to stimulate him to do some work during vacation.

These recitations cover the anatomy and physiology of the female organs of generation and the fertilization and implantation of the ovum; they serve as an introduction to the recitations given in the first and second trimester of the third year, when forty-four recitations, two a week, deal with the physiology of pregnancy, labor and the puerperium, during the first trimester, and with the pathology of these conditions during the second trimester; while twenty-two recitations deal with the essentials of gynecology; time is taken out of the hours for recitations in the second half of the second trimester for practicing forceps deliveries, versions and pelvic end extractions.

THE LABORATORY COURSE AND THE COURSE IN DIAGNOSIS.

For these courses the junior class is divided into three groups; each group takes these practical courses in a different trimester. Twenty-two hours are devoted to laboratory instruction in obstetrical and gynecological pathology; the remaining twenty-two hours are devoted to exercises in obstetrical diagnosis; points in history taking are discussed; the student is drilled in pelvimetry; in inspection, palpation and auscultation of the pregnant abdomen and in pelvic examinations; he must be able to convey his findings to paper and make a correct obstetrical diagnosis; he acts as witness in the delivery rooms and studies puerperal involution and the changes in the new-born in the wards. At the end of this course the student is subjected to a practical examination, and he is not allowed to take up the senior work until he has proven his qualification. Both of these practical courses are given by the one instructor, who is on a salary; he is assisted by members of the house-staff.

THE SENIOR COURSE.

This course consists, first of all, in the attendance of cases of labor under supervision; groups of four students live in the obstetrical out-service quarters throughout the year; this service is especially

active during vacation, so as to provide students with the necessary credits for practical work, without taking them away from other schoolwork; each student is required to attend fifteen cases of labor and to take care of the puerperal woman and her baby for two weeks or longer; the number of required cases has been raised from ten to fifteen, because the State of Pennsylvania requires that candidates for admission to practice have delivered at least twelve women. Our classes are still so small that many ambitious students deliver thirty or forty cases and more; the time so spent is not included in the 242 hours of the curriculum.

During the session the senior class is divided into three groups, of which one group is on the medical service, another on the surgical service and the remaining group is split into two sections which are rotating between the obstetrical and the pediatrial service.

The obstetrical section, composed of one-sixth of the senior class, thus changes every five and one-half weeks; during that time the group works on the hospital service from nine to twelve every day of the week; this constitutes ninety-nine hours of schoolwork in the curriculum. The students now act as clinical clerks; they are assigned cases and work them up under the guidance of the house-staff; they participate in the ward rounds; assist in the operating rooms and attend cases of labor; in fact, they participate in the entire work of the hospital and are expected to look after their patients after school hours and on Sunday just the same as their teachers must do; they reside during these five and one-half weeks in the obstetrical out-service quarters; receive additional instruction on the manikin and are given such a prolonged practical test and examination that this part of the course may well be compared to the German "Staatsexamen."

During the first and second trimester of the fourth year the entire senior class meets the chief of the department once a week in the clinical amphitheater from twelve to one o'clock; this hour is filled by clinical lectures and demonstrations on obstetrical and gynecological topics. These twenty-two hours bring the senior course up to the 121 hours of the curriculum and serve the very good purpose of keeping the classes under absolute control to the end of their two years' course in obstetrics.

The Dispensary and the Hospital Service and the Undergraduate Instruction does not exhaust the activities of the department; there is a beginning of graduate instruction; there is the instruction both practical and theoretical to the students in the Department of Nursing; there has recently been instituted a six months course in

obstetrics for registered nurses with proper educational qualification to fit them for missionary work in country districts, in the hope that they may serve as instructors and advisors to expectant mothers in thinly settled regions; there also remains the great obligation of providing time and facilities for original work to the large number of volunteer workers in the department, who have a right to expect such recognition for their unselfish devotion to the cause of medical education and research

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DISCUSSION.

DR. HERMAN E. HAYD, Buffalo, New York.—It is unusual to have a paper of this kind presented before this Association. It has been very interesting and instructive to us, and I agree with our president, Dr. Pantzer, that this is what we hope to come to, and from what Dr. Schwarz has stated you can see what a wonderful institution he has in St. Louis. He evidently keeps in touch with people who are inspired with the right kind of feeling for humanity.