eases accompanied by marked emaciation near death may give positive reactions. This seems especially true of tuberculous cases. In such cases there is usually no question of a differential diagnosis of syphilis. In other diseases the reactions are generally negative. The few positive reactions might well be explained by the possibility of the incidence of a latent syphilis.

MODERN IDEAS ON THE TEACHING OF THERAPEUTICS AND PHARMACODYNAMICS.

BY MAURICE VEJUX TYRODE, M.D., BOSTON.

FOR a long period of time when little was known about the action of drugs, these were used very lavishly, and, as a reaction against this system, arose the school of homeopathy, which, if faithfully practiced according to Hahnemann, is practically drugless therapy on account of the laws of increased activity by infinite dilution. As a reaction against homeopathy, still more active medical treatment came in vogue in the regular school, to be dethroned later by the distraction brought about through the brilliant researches in pathology and bacteriology. A state not only of drug but of complete therapeutic nihilism resulted, so that the chief interest of physicians in their patients was to make the anti- and post-mortem diagnoses.

Fortunately, another reactionary period has begun, and, as well abroad as in our country, activity is constantly increasing in the fields of therapeutic research and teaching. As Ehrlich says therapeutics is the most important of all medical subjects, this is true, as curing, treating or preventing disease is the whole function of a physician. If therapeutics has this unquestionable importance it should be taught in as adequate a manner as physiology, anatomy, pathology, bacteriology, medical diagnosis and surgery, the latter being a form of mechanical therapeutics.

The treatment of disease can be divided into four great fields: the physical, including surgery, hydrotherapeutics, massage, gymnastics, x-rays, Finsen-rays and radium; the psychical, dealing with mental suggestion in the waking, hypnoidal or hypnotic states; the dietetic, including changes in the character of the diet, and the chemical or medicinal, which deals with drugs in the old sense of the word and with organ preparations, sera and antitoxins. All these methods are of great importance, and in spite of the fact that enthusiasts in other branches have spoken disparagingly of medicinal therapy, it remains a fact that in a large number of conditions we are still very dependent on chemical and medicinal treatment in its broad sense, and with the great advances in specific therapeutics made by Laveran, the Liverpool School of Tropical Medicine and Ehrlich, it is probable that our dependence on these agents will increase rather than decrease in the future.

In view of these facts, an adequate course in therapeutics should at the present devote a large

part of its time to chemical agents, yet not neglect the mechanical, dietetic and psychical.

The courses in chemical or medicinal agents should consist in one on *materia medica*, where the physical and chemical properties are studied, and another in pharmacodynamics or experimental therapeutics, where the action of these bodies are investigated. At the present time, in many schools in our country and abroad, excellent courses are given in *materia medica* and pharmacodynamics, but therapeutics is often neglected, except the surgical, which has developed out of proportion to all the others.

The course in *materia medica* should consist chiefly of laboratory work, where students might have the opportunity of coming into intimate contact with medicinal agents and of studying some of their features important for use in practice.

Pharmacodynamics should be taught by lectures, recitations and conferences given in conjunction with a laboratory course, where the effects of the chief chemical agents might be studied by the students upon animals both in normal and pathological conditions. The work in experimental therapeutics, the new field of pharmacodynamics, such as the specific action of arsenic and dyes in trypanosomiasis, should also be studied in this course. The bearing of the action to use in disease should always be kept prominently in the minds of the students, for pharmacodynamics or experimental therapeutics have no reason for their existence if it were not for their value in the treatment of disease. As long as the medical schools are for the purpose of training medical practitioners, these subjects should be taught with that end clearly in view by one who is not only scientifically trained, but who also has practical experience.

Exclusive of surgery, which is a great department by itself, therapeutics other than medicinal should be taught by separate and practical courses in hydrotherapeutics, massage, gymnastics, light-rays, electricity, dietetics and psychotherapy by men specially trained, doing research and practicing along these lines.

Besides the practical therapeutics taught in all the special clinics such as those of medicine, neurology, dermatology, ophthalmology, laryngology, etc., there should be a general course on therapeutics, taking up the subject from the point of view of diseases, reviewing and comparing different methods in the particular affections. Part of this course could be didactic and another portion practical, given in the amphitheater of the hospitals in collaboration with the departments of medicine. This course might be most suitably given by a man having had a special training in pharmacodynamics and dietetics, who afterwards practised medicine and became familiar with the other methods. In all these departments of therapeutics, electives and post-graduate courses should be freely offered for those desiring special training in any particular line.

Although the teachers in the different branches might be attached to special divisions, such as

mechanical therapeutics to orthopedic surgery and psychotherapy to neurology, yet there should be a special organization of the men teaching therapeutics in its different branches, as pharmacodynamics, hydrotherapeutics, dietetics, etc., so that they might meet quite frequently and agree on plans for thorough co-operation. This co-operation should also take place with the departments of medicine, surgery, the other medical sciences and the specialties.

Clinical Department.

A CASE OF OVARIAN TUMOR WITH TWISTED PEDICLE IN A CHILD THREE MONTHS OLD.*

BY F. B. LUND, M.D.,
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On Jan. 2 I saw in consultation with Dr. Warren D. Ruston, in Somerville, a girl baby three months old. The baby was breast fed. The delivery had been normal and the child had been healthy. She was the second child. Forty-eight hours before I saw her the child was restless and woke up crying. During the previous day she had vomited once or twice, and the movements were a little greenish. Twenty-four hours ago she seemed somewhat better and in the morning the mother gave her castor oil. The bowels moved very slightly, but the child, in the afternoon, was crying and uncomfortable and Dr. Ruston was called. His examination was negative except that the abdomen was distended. It was not tender, however. There was no result from the oil and Dr. Ruston gave low enemas of sweet oil with no result. During the night the child slept fairly well and this morning (Jan. 2) the abdomen was more distended. The bowels had not moved. The child was fretful. Thinking that the child might have a distended bladder, Dr. Ruston catheterized her, using for the purpose a salt infusion nozzle, and got an ounce and a half of clear urine. He then gave two high enemas of sweet oil and turpentine with very slight result. In the morning the child was blue and pale and rather pinched looking. She had had nothing by mouth except some water and a few drops of brandy, and had not vomited.

When I saw the child she looked pretty well, but the abdomen was certainly much distended. Rectal examination was negative. Following it there was a slight discharge of brown feces without any sign of blood. The child had a small umbilical hernia. She cried so on examination of the abdomen that I could not make out much of anything. Ether examination, however, showed that the entire abdomen was filled by a large fluctuating mass, which was thought to be a cyst. I had been summoned to operate for intestinal obstruction, and Dr. Ruston's diagnosis, previous to finding the cyst under ether, had been probable intussusception. Against this diagnosis, however, was the fact that the small movements obtained had contained no blood and that the characteristic sausage-shaped tumor of intussusception could not be felt. After the ether examination, which cleared things up immensely, I was inclined to think the child had a cyst of the mesentery, as I had seen those before in little babies and had never seen an ovarian cyst in such a small child. An ovarian cyst with twisted pedicle was put down as the second most probable diagnosis, as it was thought that something must have

happened to produce the acute symptoms, she having been well up to three days before I saw her.

A median incision was made and the cyst, which you see here, was found. It was dark purple in color, and the pedicle, consisting of the broad ligament and right tube, was twisted upon itself one and a half times. The cyst was tapped, drawn out of the abdomen, untwisted and removed. The left ovary contained two cysts, each about the size of an almond. These cysts were excised from the ovary. The little umbilical hernia was quickly excised with scissors and sutured transversely, and the abdominal wound sewed up. The wound was sewn in layers and the child was pretty ill for twenty-four hours. She then made a perfectly satisfactory recovery.

FIG. 1. Half tone from the painting of the cyst made by Miss Blair after the specimen had been preserved in Kaiserling. About one quarter natural size.

On looking up the subject of ovarian cysts in little children, I find that Dr. Harry I. Wiel, of Baltimore, has made a study of all the cases up to 1905, presenting a paper before the Johns Hopkins Medical Society, in which he discussed the case of a girl five years old, operated upon by Dr. Kelly. The paper is entitled "A Survey of Ovariectomy at the Extremes of Life."¹ He had collected 24 cases in children of five years and under, with 12 recoveries, 3 in which the final result was not known, and, therefore, about 33% of deaths. The youngest case operated on was the same age as this baby, namely, three months. The operation was by Chiene and was reported in the *Edinburgh Medical Journal* for June, 1884. The next youngest was four months old, operated upon by Power, and reported in the *British Medical Journal* of March 5, 1895. Then there was a gap until one and two-thirds years.

In these little babies sarcoma and dermoids predominate over cysts, there being 8 cysts, 7 sarcomata, 7 dermoids and 1 teratoma. In cases from six to ten years of age there was also a marked predominance of sarcomata and dermoids over the cystomata. The percentages of

* Reported at New Bedford Medical Society, Feb. 8, 1909.

¹ Johns Hopkins Med. Bull., March, 1905.