FOUR CASES OF PREGNANCY COMPLICATED BY HEART DISEASE.

BY GEORGE G. SEARS, M.D.,
Assistant Visiting Physician, Boston City Hospital.

THE following cases, which have recently come under observation, are briefly reported as a contribution to the statistics of the cardiac complications of pregnancy. They illustrate the successful issue, which is to be expected in a majority of instances, as well as a number of the accidents which may occur, while the one fatal case adds another to the long series of deaths from this cause, which might have been prevented by promptly terminating pregnancy as soon as it became evident that the usual therapeutic measures were insufficient to check the failing cardiac compensation. Unfortunately, here the patient did not seek advice until the opportunity had passed.

CASE I. Mrs. T., thirty-one years old, a primipara, had her last catamenial period in July, 1895. Her previous history is not noteworthy. At her first visit in October examination showed that the temporal arteries were abnormally tortuous and that the radials were somewhat thickened so that they could be distinctly felt.

The area of cardiac dulness was perhaps a little increased but no murmurs were detected. The pulse was regular, but of only moderate strength. The urine contained no albumin till near the end of the pregnancy when a very slight trace appeared. In January, 1896, she began to complain of dyspnea and had a slight cough, raising on one or two days a little blood-tinged expectoration. These symptoms passed off under treatment and during the last few weeks of her pregnancy she suffered no more discomfort than was natural to her condition. Her feet were slightly edematous. Labor came on at term and was not severe. There were no notable symptoms up to the time when the os was fully dilated and the head had begun to descend through the pelvic strait, then the pulse, which had remained good throughout, suddenly became irregular and intermittent. Ether, of which only a little was required, was immediately given and the child extracted by forceps as rapidly as possible.

After the birth of the child the mother was in a state of extreme collapse; respirations were so shallow as to be barely perceptible and the pulse could not be felt at the wrist. Under hypodermic stimulation, however, she revived, but the re-establishment of the circulation started up a brisk uterine hemorrhage in which she lost an alarming amount of blood. This was checked after the uterus was packed with iodoform gauze by Dr. Chute, to whom I am indebted for the most timely assistance. Convalescence was slow but uninterrupted and mother and child are now doing well. A later examination of the heart showed an accentuated and reduplicated pulmonic second sound. It seems probable that some mitral obstruction exists.

CASE II. Mrs. K., a primipara, forty years old. Except for a serious attack of faintness and dyspnea after climbing up one of the White Mountains twelve years ago she had never had any symptoms which should lead to the suspicion of any cardiac trouble. Her last period occurred in December, 1895, and during the next four months she never felt better in her life. Then she began to complain of dyspnea and of a short, hacking cough, and noticed that her feet were

beginning to swell, but thought little of it as her friends told her that such symptoms were incidental to her condition. They steadily increased, however, and in the latter part of June had become so serious that she consulted Dr. George Haven, who a few days later kindly asked me to see her with him. At that time dyspnea was so great that she was unable to lie down and spent most of the time sitting up in a chair. Her face was dusky, her hands markedly cyanotic, the veins standing out in prominent relief. The legs were greatly swollen, the edema extending nearly to the hips. The area of cardiac dulness was laterally enlarged and over the apex, which was situated in the fifth interspace about an inch outside the nipple line, a very rough presystolic murmur was heard. Over the bases of both lungs there was marked dulness with deficient respiration and numerous medium and fine moist râles. The pulse was 90, regular, but small and weak. The urine was scanty, of high specific gravity and contained a very small trace of albumin. The time for interference had passed and her only chance lay in the possibility that the heart still possessed some recuperative power and would respond to stimulation. During the next two weeks she apparently improved somewhat, and seemed much more comfortable, the dyspnea grew less and the urine increased from about seventeen ounces to nearly thirty in the twenty-four hours, but the improvement could not be maintained and at the end the heart suddenly gave out, death occurring just before the completion of the seventh month.

CASE III. Mrs. C., vii-para, thirty-eight years old, was also seen with Dr. Haven, whose patient she was at the Lying-in Hospital, and I am indebted to him for the privilege of reporting it. During the past twenty years she has had four or five attacks of rheumatism, the last and most severe one being a year ago. Following the birth of her last child, two and a half years ago, she had an attack of very severe precordial pain and dyspnea which lasted several hours, but apart from this she gave no history of anything abnormal in any of her pregnancies or labors. When six months along in her present pregnancy she began to cough, but noticed no other symptoms until the end of the eighth month when she began to grow very short of breath, the cough increased and her feet became swollen. When admitted in labor to the hospital, dyspnea was so great that she could not lie down and had to be delivered sitting up in bed. The first stage lasted eight hours, but the pains were neither severe nor frequent. The second stage lasted six minutes. After delivery there was a sudden attack of dyspnea with cough accompanied by much frothy expectoration. The post-partum loss of blood was considerable. When seen three days after delivery she was propped up in bed, breathing rapidly and somewhat cyanotic. There was marked cardiac enlargement and at the apex both a systolic and a presystolic murmur were distinctly audible, while a double murmur was also heard over the aortic area. Over the third left costal cartilage a very rough to-and-fro murmur was heard either pericardial or pleuro-pericardial in origin, which had disappeared a few days later. There was marked edema at the bases of both lungs. The urine was diminished in amount, had a specific gravity of 1.024, and contained a large amount of albumin. The sediment was composed of much blood with numerous hyaline and fine granular casts. Recovery was gradual, and when

last heard from both mother and child were doing well.

CASE IV. Mrs. C. K., age twenty-eight, was admitted with meningitis to my service in the City Hospital from the Lying-in Hospital where she had been brought a week previously in a convulsion following the birth of twins. Labor had been so easy that no physician had been summoned. No symptoms had ever been present which could be referred to the heart although its area was somewhat enlarged laterally and a distinct presystolic murmur was found just inside the apex beat. Her first child had been born ten months before and was still living.

Beside those patients who have applied for treatment for cardiac disease, whose histories showed that the valvular lesions antedated one or more of their pregnancies, my experience is limited to nine cases where heart disease and pregnancy coexisted. So far as it goes it would show that such a complication, when properly managed is not necessarily a very serious one, if the immediate consequences only are regarded, as but one died (Case III of the present series, with mitral stenosis), and she had already passed the period, when first seen, where help could be afforded in any way. The others, under general treatment or with no treatment at all, were all successfully delivered at or near term, with one exception, also a case of mitral stenosis, when abortion was thought necessary, the patient being still alive two years later. Of these nine cases, four were suffering from mitral regurgitation, three from mitral stenosis, one from a double aortic lesion and one from combined mitral and aortic lesions.

Medical Progress.

RECENT PROGRESS IN LEGAL MEDICINE.

BY F. W. DRAPER, M.D.

DEATH BY ELECTRICITY.

THE cause of death following electric shock is not yet definitely decided. P. A. Fish¹ reports the results of his examination of the bodies of two men after electrocution; in neither was there found any lesion of the nerves or nerve-cells. In summing up the results of his investigations, he says:

"It is not probable that one tissue or system of tissues is selected by the electricity as it traverses the body, although there may be different degrees of susceptibility. Death may be brought about by the killing of the cells in the nerve centres, the electricity in this case, acting as a fixing agent; for as in histology when certain reagents, or in some cases, simply their vapor, are allowed to act on living nervous tissue, this not only kills but fixes or retains the elements of the tissue in the position they held at the time of the action of the reagent."

HYPNOTISM AND CRIME.

In recent years, hypnotism has entered in a number of cases into the defence brought forward by those who were charged with felonious crimes. The first case, however, in which an individual has been tried, convicted and sentenced for the abuse of hypnotic power, was reported by Moritz Ellinger² before the

Medico-Legal Society, of New York. The case was tried in Munich, and the accused (Czynski) was convicted and sentenced under three counts:

1. That he put Baroness Van Z., by means of hypnotism and suggestion in a condition of loss of the will power, in which she, without the power to exert her own will, submitted herself to him in illicit intercourse.

2. That he induced W. by the promise of financial gain, to do things which could only be done by a person properly authorized.

3. That he gave to the brother of the baroness a document which was a false marriage-certificate, for the purpose of securing thereby substantial advantage through the use of the baroness' considerable wealth.

It appeared in evidence that the baroness, a woman of neurasthenic constitution and family predisposition, first went to Czynski, a professional hypnotist, for the treatment of certain supposed diseases. After gradually acquiring the alleged hypnotic power over her and maintaining improper relations with her for several months, he caused her, so it was charged, to marry him, the ceremony being performed by one W., who personated a clergyman and furnished a false certificate. Czynski tried, unsuccessfully, by means of this document to obtain possession of property belonging to the baroness which was held in trust by her brother.

PRIVILEGED COMMUNICATIONS.

The subject of privileged communications was again brought into prominent notice by the well-known case of *Kitson versus Playfair*;³ and the forcible, if somewhat remarkable, position taken by Mr. Justice Hawkins is worthy of note. He asked Sir John Williams if he "thought it the duty of the physician to inform the public prosecutor if it had been found that the patient whom he was attending had submitted to an unlawful operation." The answer was in the affirmative, that the College of Physicians had so decided. The judge said that such a position would make him very careful in the selection of his medical advisers; and in his charge to the jury, he went further and said that "the theory that it was always the duty of a physician to inform the public prosecutor when he suspected that a crime had been committed, was simply monstrous."

POISONING BY ILLUMINATING GAS.

The numerous cases of fatal poisoning by carbon monoxide in communities where water gas is used as an illuminant, make the following remarks by Dr. John Haldane⁴ of especial interest. Summarizing his observations and experiments which led him to conclude that the "property [residing in carbonic oxide] of excluding oxygen from the blood really affords a complete explanation of its poisonous action, so that this action may be referred solely to oxygen starvation," he adds: "In breathing carbonic oxide experimentally no unusual effects are felt, during rest, until the blood is thirty per cent. saturated; but any exertion causes dizziness, loss of power and shortness of breath. These symptoms, occurring on exertion, are the first symptoms of carbonic-oxide poisoning. With the blood more than thirty per cent. saturated, throbbing of the vessels of the neck, and slight shortness of breath are felt even during rest. As the saturation of

¹ Journal of Nervous and Mental Diseases, January, 1896.

² The Medico-Legal Journal, February, 1896.

³ Gallard's Medical Journal, April, 1896.

⁴ British Medical Journal, October 3, 1896.