TUBAL PREGNANCY.

By HENRY HANCOX, M.D., Wolverhampton.

THE subject of the following case was Mrs. D., the wife of a miner, residing at Bilston. She was the mother of one child, which survived its birth only a few hours; the catamenia had been regular up to the period of her becoming pregnant with the present child. She is 23 years of age, and has always enjoyed good health. On September 24th, she began to complain of pain on the right side of the abdomen, accompanied with a sinking sensation and faintness, which she attributed to an injury she had received on September 4th, in defending herself against a man who attempted to commit a rape upon her. A dose of opium was administered, which gave her relief: and she continued to go about and discharge her domestic duties, until November 17th, when the pain in the right side of the abdomen again returned, and was again relieved by the same medicine.

November 21st. She became much worse, the pain being of a more violent character, accompanied with great nervous depression. On examination *per vaginam*, the parts were found very dry; the os uteri was very high up; tilted forward under the pubis; no signs of labour could be detected. She continued to get worse; the symptoms becoming more alarming; the pulse was feeble and quick; colliquative sweats bedewed the body; the eyes were sunken, and the countenance was pallid, and presented an anxious expression; she lingered in this state till the 23rd, when death ended her sufferings.

On the 25th, a *post mortem* examination was made by my brother, Mr. W. M. Hancox, in the presence of Dr. Fraser, Mr. Gutteridge, Mr. Larkin, and myself, when the following appearances were observed:—On laying open the cavity of the abdomen, a female child, together with the placenta, was found in the cavity of the abdomen; the child was supposed by all present to be at least eight months and a half. It had been well nourished; and, judging from appearance, it must have been alive at the time of the poor woman's death. The placenta was well formed, and did not differ in any respects from an uterine placenta, but presented a natural and healthy appearance. The cavity of the abdomen contained at least four or five quarts of effused and coagulated blood. On examining the uterus minutely, to find the place where rupture had taken place, we found a large opening three or four inches in length, in what afterwards proved to be the right Fallopian tube, the cavity of which was dilated to the size of a naturally impregnated womb at the ninth month, and presented all the appearances of the gravid uterus at the same period of gestation. The walls of the cavity were very thin, and attenuated to the breadth of three fingers at its superior edge, the place where rupture had taken place; while below this spot, the walls were very much thickened, like the substance of the heart. The communication between the Fallopian tube and the uterus was perfectly occluded. The body of the uterus was found in its natural state; it was not enlarged. On laying it open, the internal surface was in a perfectly healthy condition, and an opening into the Fallopian tube of the left side was quite apparent, but no trace of a similar communication into the right tube was discovered. The ovaria presented no unusual appearances; the Graafian vesicles were distinctly visible, especially in the right ovary.

REMARKS. In recording the above interesting case, I am convinced in my own mind, that it will not fail to be interesting to many readers of the JOURNAL, not only from the circumstance attending the death of the poor woman, but from the length of time she carried the child in the Fallopian tube without experiencing any pain or inconvenience till within a few weeks of her death; the Fallopian tube admitting of so much dilatation as to be able to contain so well nourished and large a child (eight months and a half) and a placenta, in every way as large and as thick as an uterine placenta, renders it one of the most remarkable cases I am acquainted with on record. Dr. Burns (*Principles of Midwifery*, tenth edition) mentions a case occurring in the practice of a Mr. Moore, in which the woman carried the fetus to the sixth month, the uterus being enlarged to the size of a fist. The uterus in this instance was no larger than an unimpregnated womb. This circumstance does not accord with the experience of Dr. Burns, who states, "it generally enlarges considerably". Dr. Hunter, he says, "had a preparation of tubal pregnancy in which the uterus was found enlarged to double its natural size." It is a matter of surprise that rupture did not take place immediately, or soon after the injuries she received six or seven weeks

previous to her death; but she seems to have completely recovered from the injury and shock which the system must necessarily have received, as to be able to go about and discharge her duties.

Notes of Lettsomian Lectures

ON

CERTAIN POINTS CONNECTED WITH DIABETES.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON.

By FREDERICK WM. PAVY, M.D., F.R.C.P., Lecturer on Physiology at Guy's Hospital.

LECTURE III.

[Delivered December 7th, 1859.]

THE views promulgated by M. Bernard, as to the functions of the liver, have met with some amount of opposition on the Continent. M. Figuier admits the presence of sugar in the animal body; he believes, however, that it has not been formed there, but that it has been derived from the vegetable kingdom and stored up. To explain the absence of sugar in the blood of the portal vein, he supposes that there is something in that fluid which masks its presence. In 1850, M. Schmidt published some views which referred sugar to a change taking place in the circulatory system, not in the liver. Again, M. Sanson has promulgated a theory in which he follows M. Figuier to some extent; but he says that a material closely allied to the glucogenic matter is found in all the tissues as well as in the liver. These objections, however, to M. Bernard's theory are quite destitute of validity, being entirely hypothetical.

In the experiment recorded at the end of the second lecture, there was sufficient evidence to show that the liver has not a sugar-forming function during life. Since, then, the liver does not possess such a function, and since the blood from this organ, examined during life, gives no trace of sugar, it was necessary to modify the opinion which we have been led by M. Bernard to entertain; and we have now to ask, What becomes of the amyloid substance? And here there is a difficulty: for it is often more easy to overturn a theory than to substitute a satisfactory one for it. Dr. Pavy, however, was engaged in the investigation of the question; and he believed he had some landmarks in the inquiry which seemed likely to lead him to the determination of a close relation between the amyloid substance and fat. The amyloid substance, as was shown in some experiments referred to in the second lecture, is notably increased in quantity by the use of food containing sugar; we know also that fat may be formed from saccharine matter. If an animal be fed with material containing starch or sugar, it becomes fat; and in the West India islands, it is a matter of common observation that the natives become fat during the sugar season, from their habit of sucking the canes. The amyloid substance seems to hold an intermediate position between sugar and fat. Further observations on this subject, however, Dr. Pavy would defer until his investigations were more complete.

An unnatural conversion of the amyloid substance into sugar leads to diabetes. This disease depends on the presence of sugar in the blood: if this substance be accumulated in the blood in sufficient quantity, it will appear in the urine. This is true also of grape-sugar, if injected into a vein; cane-sugar, introduced into the system in this way, appears in the urine as cane-sugar; but if introduced by the alimentary canal in sufficient quantity to cause diabetes, it is transformed into grape-sugar. Dr. Pavy had observed this in experiments on dogs. Starting from this point, it might now be asked, How does the sugar enter the blood?

According to the former doctrine, there were two ways in which sugar might enter the circulatory system. M. Bernard taught that sugar was formed in the liver, and conveyed thence to the lungs. If more was formed than could be eliminated by the lungs, it would be accumulated in the blood; and the same result would arise if the power of the lungs to destroy the ordinary amount of sugar were defective.

But the hypothesis that sugar undergoes combustion in the lungs, is negatived by the fact that, whenever it is found in the right side of the heart, it is also found in the arterial system,