A CASE OF OVARIOTOMY PERFORMED DURING THE SIXTH MONTH OF PREGNANCY WITHOUT INTERRUPTION TO GESTATION.

By ALFRED L. GALABIN, M.D., F.R.C.P.,

Assistant Obstetric Physician and Joint Lecturer on Obstetrics to Guy's Hospital ;
Examiner in Obstetrics to the University of Cambridge.

MRS. L., aged 29, first consulted me on June 14th, 1879, on account of rapid enlargement of her abdomen during the last two months. She was then under the care of Mr. Powles of Shepherdess Walk. She had had two children, and no miscarriages. After each delivery, she thought that a lump had remained on the left side of the abdomen; but this had not been observed by her medical attendant. The last child was born in September 1878, and died in January 1879, having been suckled until its death. The distension of the abdomen was now much greater than at the full term of the previous pregnancies; and she was uncertain whether she were pregnant or not, having felt no foetal movements, and having had no sickness nor other subjective signs of pregnancy. Menstruation had not recurred since the last delivery. After her first delivery, she had suckled the child for eleven months; and the second child had been born when the first was fifteen months old.

On examination, it was found that the abdomen was enormously distended, and its surface, from the umbilicus downwards, was extremely oedematous, so that the superficial tissues were increased in thickness to at least three inches. A uniform and distinct fluid thrill could be felt over the whole surface of the abdomen. On vaginal examination, the cervix was found to be closed, but appeared to be softened, as in pregnancy. The resistance of the anterior vaginal wall resembled that produced by the presence of the pregnant uterus. The condition of the breasts also appeared to indicate pregnancy. No foetal movements were felt either from the abdomen or by vagina, and no foetal heart-sounds nor uterine souffle could be heard. On bimanual examination, it was found absolutely impossible to define the size of the uterus or to ascertain the level of the fundus by the impulse communicated to the cervix. The urine was free from albumen, the legs were not oedematous, the temperature was normal, and the general health pretty good.

I considered the probable diagnosis to be that of an ovarian cyst combined with pregnancy; and, from the fact that no foetal heart sounds nor foetal movements could be made out, I thought that the pregnancy could not exceed four or five months in duration, conception having probably occurred soon after the death of the last child, and within five months after its birth. Since, however, the great oedema prevented the uterus from being defined bimanually, I considered the differential diagnosis from hydrops amnii not quite certain. The oedema of the abdominal wall made it evident that some interference would soon be necessary. I thought that, if the case should turn out to be hydrops amnii, the puncture of the uterine wall intapping would not be without risk, although the operation has been performed without fatal result in some cases in which hydrops amnii has been mistaken for an ovarian cyst with pregnancy. (See a case reported by Dr. Kidd to the Obstetrical Society of Dublin, *Obstetrical Journal*, December 1878.) I was, therefore, inclined to recommend an exploratory incision with antiseptic precautions, to be followed by ovariectomy if an ovarian cyst were found to exist.

Three days later, the patient was attacked with general abdominal pain accompanied by dyspnoea.

On June 20th, I was sent for to see her at home. I found her sitting up in a chair, the dyspnoea preventing her from lying down even at night. The oedema had now extended further over the abdomen, and the skin was reddened on the surface. The legs were also oedematous, and the urine contained a considerable proportion of albumen. There was much abdominal tenderness, and the temperature was 101.3° F., pulse 120. On examination under chloroform, foetal movements were distinctly felt from the vagina. Even under the anæsthetic the finger could not be passed into the cervix, nor could the height of the fundus be made out.

Feeling now pretty certain, from this condition of the cervix, that the case was not one of hydrops amnii, I advised tapping for immediate relief. This operation was performed under carbolic spray the same evening, and twenty-one pints of fluid were drawn off. The fluid was of specific gravity 1007, pale and slightly glutinous, containing a moderate quantity of albumen. Towards the end, some soft flaky material escaped through the cannula. After removal of the fluid, the fundus of the uterus was found to reach close up to the umbilicus, and the foetal heart could be heard. The date of pregnancy was estimated

at about five months. Judging from the date of the subsequent delivery, it must then have been about seven days short of five calendar months. On microscopic examination of the fluid withdrawn, numerous clusters of cells of irregular shape were found, apparently indicating the existence, in the interior of the cyst, of papilloma with proliferating epithelium, and therefore of a tendency towards malignancy. The patient was much relieved after the tapping; the albuminuria and oedema disappeared, and the febrile symptoms gradually subsided, although tenderness of the abdomen continued for some days. Immediately after the tapping, the foetal movements became at once distinctly perceptible to the patient, and appeared to her to be stronger than was usual at the fifth month of pregnancy.

On July 4th, there was found to be again a considerable increase in the distension of the abdomen, and fluctuation was again perceptible over a considerable surface, chiefly toward the upper part of the abdomen. On account of the microscopic characters of the fluid withdrawn at the first tapping and the great activity of the cyst, as shown by the rapid re-accumulation of fluid, I decided to recommend ovariectomy in preference to repeated tapings or the induction of premature labour. It was, however, to be expected that the operation would prove formidable on account of the stage of pregnancy which had been reached, in conjunction with the adhesions which the recent attack of peritonitis had probably left.

I performed the operation under carbolic spray on July 7th, when the patient must have been about ten days advanced in the sixth calendar month of pregnancy. The fundus uteri being felt nearly up to the level of the umbilicus, the incision through the abdominal wall was so made that its lower extremity corresponded with this spot. On tapping the cyst, about eight pints of fluid were drawn off. The fluid on this occasion was not pale, but was stained by blood-pigment to a deep reddish brown. The whole interior of the cyst was covered by papillary growth, and very vascular adhesions were found connecting it with the abdominal walls, the pelvic brim, and the uterus. The attachment, situated on the right side, was very broad, and had to be tied in sections with carbolised silk as closely as possible to the angle of the uterus. On cutting away the tumour, several small cysts, containing soft putty-like material, and covered, like the large cyst, with a papillary growth, were laid open. In order to remove the whole of the papillary surface, it was necessary to cut away the stump with scissors uncomfortably close to the ligatures, less than a quarter of an inch of tissue being left beyond them. After removal of the cyst, great difficulty was found in arresting the bleeding from the very vascular tissues of the uterus and its neighbourhood, and numerous ligatures of fine carbolised silk were applied to the bleeding points. Eventually, as blood was found repeatedly to well up from the right groin, the pedicle, which had retracted deeply, was brought into view again with some difficulty; and, as some oozing was taking place from it, an additional ligature was placed round its whole circumference. No drainage was employed, the abdominal wound being closed by silkworm-gut sutures. The operation had lasted an hour and three-quarters; and, before its conclusion, it proved necessary to replenish the boiler of the steam-spray apparatus which was in use, the wound being, of course, meanwhile suitably protected. In order to avert a miscarriage, if possible, one-third of a grain of acetate of morphia was injected subcutaneously immediately after the operation, and the same dose was repeated three or four times a-day for the next few days.

On July 8th, the patient appeared in fair condition; the temperature being 98.9° F., pulse 112. The morphia injections produced a considerable feeling of *malaise*, and appeared to cause vomiting. This effect was only slightly mitigated by the subsequent addition of atropine to the injections.

On the 9th, the temperature was 97.2° F., pulse 106. No pain was felt in the abdomen, except when the child moved. The patient was chiefly troubled by a swollen face, the result of decayed teeth, the swelling having existed at the time of the operation.

On the 10th, there were slight symptoms of peritonitis, the abdomen being painful and tender; and the temperature had risen to 101.2° F., pulse to 120. Next day, these symptoms had subsided, the temperature had fallen to 99°, and no threatening of labour occurred. When the sutures were removed on the seventh day, the whole wound was firmly united.

The patient did extremely well until the fifteenth day after the operation, and had already dismissed her nurse, when she was suddenly attacked by phlegmasia dolens of the left leg, accompanied by induration in the course of the femoral vessels from the groin to the popliteal space. There was considerable fever for several weeks, the temperature rising as high as 104° F.; and she became much emaciated. No miscarriage, however, occurred. I was absent from England at the time of this illness, and did not see the patient again till September 7th. The

swelling of the leg and fever had then subsided, but there was still great stiffness of the thigh and knee, with tenderness and induration in the course of the vessels. From this time, she gradually improved, and, during the last month of her pregnancy, had very good health. A living female child was born on October 27th. Labour lasted three days, chiefly through prolongation of the first stage. Mr. Powles was contemplating the application of forceps, but delivery eventually took place naturally. The former labours had been normal. A month after delivery, the patient was found to be in fair health. The cicatrix of the abdominal incision was quite firm, and there was no trace of pelvic induration, nor any indication of recurrence of growth in a malignant form. She still remains in good health, except that she has a little pain in the leg, and the baby is doing well.

Microscopic sections of the cyst after removal showed that its internal surface was everywhere covered with villous papillae. Their epithelial covering was mainly of the columnar type, but was proliferating into tufts of irregular cells easily detached. In many places, the papillae did not project freely into the cyst, but the surface was levelled by a layer of *débris* of blood and cells, similar to that often seen on the surface of a vegetating epithelioma of the cervix uteri. Beneath the papillae was a layer of gland-like tissue, varying in depth from one-eighth to one-fourth of an inch, and evidently formed by the ingrowth of the depressions between the papillae. Its histological structure was identical with that of columnar epithelioma, except that it was sharply limited at a very short distance from the surface. The epithelial lining of the glandular acini was mainly of a columnar type, but proliferating irregularly; and in many places the epithelium was growing in the form of prominences into irregularly dilated acini, the cells here being chiefly rounded. The fibrous stroma was infiltrated with nuclei in the immediate neighbourhood only of the glandular tissue. At a few points, epithelial cells were seen in the stroma resembling those in the acini immediately adjoining.

REMARKS.—The tolerance of the uterus in this patient, notwithstanding the very protracted operation, and the high fever produced by the attack of phlegmasia dolens fourteen days afterwards, appears to be remarkable. It would seem that in most, if not in all, recorded cases in which ovariectomy or similar operations have been performed at a later stage of pregnancy than the fourth or fifth month, premature labour has followed sooner or later. Thus, of the cases recorded by Mr. Spencer Wells in 1877 (*Obst. Trans.*, vol. xix), in one (Case 6), ovariectomy was performed about the end of the sixth month, labour followed the day after the operation, but the patient recovered; in a second (Case 7), the operation was performed in the sixth month, the foetus was expelled six hours after the operation, and the patient died; in a third (Case 9), the operation was performed in the sixth month, and the patient recovered, but premature labour came on twenty-five days after the operation. In a case mentioned by Mr. Lawson Tait (*Obst. Trans.*, vol. xix), ovariectomy was performed in the seventh month, premature labour occurred on the sixth or seventh day, and the patient died a few hours afterwards. In a case recorded by Dr. Wilhelm Baum (*Berliner Klinische Wochenschrift*, 1877), ovariectomy was performed antiseptically about the end of the fifth month of pregnancy, miscarriage followed the day after the operation, and the patient had severe symptoms ending in a pelvic abscess, but ultimately recovered. Again, in the remarkable case of hydatids of the omentum, which simulated an ovarian tumour, and were removed by Mr. Knowsley Thornton in the seventh month of pregnancy, labour came on on the eighth day, the wound having opened after removal of the sutures on the seventh day. The patient ultimately recovered. (*Medical Times and Gazette*, November 16th, 1878.) And in a case of fibroid outgrowth from the uterus, also mistaken for an ovarian tumour, and removed by Mr. Knowsley Thornton between the seventh and eighth months of pregnancy, delivery took place on the night after the operation, and the patient died on the fifth day. (*Obst. Trans.*, vol. xxi.)

It is difficult to trace a direct causation for the phlegmasia dolens by which my patient was attacked fifteen days after the operation. If there had been any access of septic material, notwithstanding the carbolic spray, she would not have progressed so favourably for fourteen days after so severe an operation; and if the starting-point were inflammation near the pedicle, set up by the presence of the ligatures, it might have been expected that the right leg, and not the left, would have been affected.

THE appointment of Dr. Thomas Hatfield Walker as Medical Officer of Health for the Longtown Rural Sanitary District, Cumberland, having expired, it was, at the last meeting of the authority, proposed, pursuant to notice, to reduce his salary from £80 *per annum* (it was originally £100) to £50; but, after a long discussion, it was negatived, and he was again appointed at £80 *per annum* by 13 to 6.

NOTE ON THE NEUROTIC ORIGIN OF LICHEN PLANUS.*

By T. COLCOTT FOX, M.B.Lond.

ALTHOUGH the interesting papular eruption called lichen planus is now well known, its exact causation has always been a great puzzle. Hebra, who was the first to describe the more severe and general form, does not discuss a cause, although he states that the progress of the disease is attended by general symptoms, such as impairment of nutrition, loss of flesh, and even marasmus. He, however, remarks that these symptoms depend on the extent and progress of the eruption. Erasmus Wilson, who first described the milder affection which is not uncommon in England, could not detect any constitutional symptoms, but suggested as a cause nutritive and digestive derangement; in this he is corroborated by R. W. Taylor, who first called the attention of the profession in America to the disease. Neumann says we know nothing certainly as to its cause, and Piffard states that its etiology is unknown. Dr. Duhring noticed signs of improper nourishment, overwork, and nervous depression; and Mr. Hutchinson, in one of his clinical lectures, places lichen planus as a member of the darts family of skin-diseases, with psoriasis and pemphigus, *i.e.*, as he explains, one of the "relapsing symmetrical constitutional skin-diseases for which arsenic is proved to be more or less specific"; and he adds, "that there seems to be a number of strong facts both as regards clinical history and mode of cure in support of the creed that all the darts are produced through some derangement of the nervous system rather than of the blood". Dr. Tilbury Fox, however, in the third edition of his work on *Skin-Diseases* (1873), was the first to point out, I believe, that the affection was certainly of neurotic origin; and, in alluding to the nervous dyspepsia, menorrhagia, heart-irregularity, and other functional disturbance he met with, he asserted that they and the hyperemia and cell-change in the skin are only parts of a general disturbance of the sympathetic (trophic?) nerves. It is to this neurotic origin of the disease that I wish to redirect attention. The evidence I shall produce is certainly most imperfect, but it is given in the hope that it may form a part of other more complete proof.

In the first instance, as regards the general symptoms, although now and again we meet with a patient suffering from a mild form of the disease in whom any sign of general ill-health or cause for the eruption is not evident, just as is the case with the known neurotic diseases alopecia areata, morphea, pemphigus à petites bulles, and ordinary pemphigus; yet the observation of nearly thirty cases of the disease has taught me that this is exceptional. Nearly always we may elicit a history of what may be conveniently termed "nervous debility", and often in a marked form, and disturbance of the sympathetic system of nerves. The system is jaded, and there is considerable nervous depression in connection with overwork, great worry, anxiety, distress of mind, flooding after childbirth, etc. The extreme nervous temperament of the patients has been noted by me in several cases which came under observation prior to the development of the eruption.

In the second place, I wish to suggest that it is incorrect to place the disease amongst the inflammations of the skin. There is no true inflammatory action present, but the chronic papules are produced by persistent neuroparalytic hyperemia and its results, *viz.*: dilatation of the vessels and engorgement of the tissues with blood, the escape of leucocytes, oedema, hypertrophy of various structures, and slight desquamation. It is not necessary to call in the disturbed action of trophic nerves to supplement that of the vaso-motor apparatus.

Thirdly, I shall not press any argument derivable from the grouping of the papules or the habitat of the eruption, but I wish to describe two cases where the papules were distributed in a manner the significance of which will be at once apparent.

CASE I.—C., aged 50, a stout but active man, engaged in farming, had rheumatic fever in 1876, but without heart-affection. He was left much debilitated, and, in April 1878, suffered from herpes preputialis. In July 1878, he had pains in his legs, and was lame for some time; but, on that condition disappearing, he sought advice, in August 1878, for the outbreak of the eruption of lichen planus, which was most typical in character. He was excessively low-spirited, and in an exceedingly nervous state. The eruption was limited to the region of the elbows, the back of the right thigh, and to a narrow band which extended down the inner half of the front of the right thigh, on the inside of the knee, and, increasing in width on the inside of the calf, terminated just behind the internal malleolus.

CASE II was an almost precisely similar case, seen also nearly at the

* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.