SELECT CLINICAL REPORTS.

(Under this heading are recorded, singly or in groups, cases to which a special interest attaches either from their unusual character or from being, in a special sense, typical examples of their class.)

Unusual Case of Hydatidiform Mole, Dealt with by Abdominal Hysterectomy.*

By J. Haig Ferguson, M.D., F.R.C.P., F.R.C.S. (Edin.).

The following case presents so many points of clinical interest, and the preparations of the uterus demonstrate so beautifully in an almost unique way some pathological points, that I venture to think it is not unworthy of your consideration this evening. All the more so that by a strange coincidence another paper follows mine dealing with another uterus containing a hydatidiform mole, in this case removed post mortem. The two cases form an interesting contrast and mutually supplement in a remarkable manner, the pathological details which Dr. Young will endeavour to demonstrate to you after the papers have been read. My own case further opens some problems as to the method of treatment, and I would welcome discussion and criticism from those present, who are so well qualified to deal with this question.

The following are the notes of the case, most of them furnished by Dr. Wilton Johns, the patient's medical attendant:—

Last December I was asked by Dr. Johns, of Nairn, to go North as soon as possible to see an urgent case with a view to operation, the patient being too ill to be removed to Edinburgh, as at one time had been intended. I set out by the first available train on a Sunday morning, and found the patient, as Dr. Johns had indicated, in a very critical and exhausted condition, and suffering from severe uterine hæmorrhage.

Mrs. C., in her 49th year, had been married for eight years, and had been previously a healthy woman and able for all her manifold duties as a farmer's wife.

Menstrual history. She began to menstruate between 17 and 18 years of age, was regular and of the 28 day type. The amount of the flow moderate (about three days' duration). Her periods were quite easy and free from pain, and never interrupted the usual routine of her life. When about 28 years of age she had complete amenorrhœa for 12 months, which was said by her doctor to be due to overwork

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and anæmia. Apart from pregnancies this is the only interruption she has ever had in the regularity of her menstrual periods. Since then she has been well and healthy up to this illness. In childhood she had chicken-pox and measles. About the age of 18 she was very stout, afterwards she got thinner, and has been a spare, wiry woman ever since. So long as she can remember she has had a skin-rash appearing and disappearing from time to time; this rash is said to resemble psoriasis.

She has had three previous pregnancies which all terminated in abortion. The pregnancies occurred respectively when she was aged 41, 43 and 45 years. They all came to an end between the 2nd and 3rd months, with no special ascertainable reason to account for the abortions.

History of development of present illness. In September 1912 Mrs. C. missed her period; previous to that she was regular and in the enjoyment of splendid health. She also missed the October period, and at that time began to suffer from various stomach disturbances.

On November 27 she was frightened in a trap accident, and jumped hastily out of the dog-cart in which she was being driven. To this accident she herself attributes the development of her present illness. She never felt well after this occurrence and got worse every day, suffering from shortness of breath, swollen feet, distended abdomen, with more or less constant vomiting. Little things seemed to disturb her nervous and digestive systems. Bleeding from the vagina commenced on the day of the trap accident (November 27), and was practically continuous till the day of operation. The bleeding came in gushes when she was up and oozed steadily when lying in bed. When the bleeding commenced she began to think for the first time that something was wrong, and she then realized that there was a swelling in the abdomen slightly to the right of the middle line. On December 11 she got alarmed owing to the breathlessness, swollen feet and a feeling of being too weak and unfit for her work; so she sent for Dr. Johns, who found her suffering from hæmorrhage and acute dilatation of the heart. He ordered her rest and tonics. On his next visit, on careful examination in bed, he found a swelling occupying the right iliac fossa and extending to about two finger breadths below the umbilicus. The swelling at that time was hard, painless on palpation, and she complained more of a dull heavy weight than of any pain. After that the swelling seemed to increase rapidly in size. She developed symptoms of obstruction of the bowels, and there was alarming dyspnœa, the hæmorrhage going on all the time.

The urine was apparently normal in quantity, and with no albumen, but was loaded with urates. The breasts were distinctly enlarged.

When I saw her on December 22 she was in a very critical condition, exsanguine and exhausted with that peculiarly drawn and anxious facial expression common to desperate cases. On examination there was a hard, slightly tender swelling in the abdomen somewhat to the right of the middle line, and reaching up a little above the umbilicus. On vaginal examination it proved to be undoubtedly a uterine tumour associated with pregnancy, although its exact nature was uncertain. The cervix was hard and cartilaginous in consistence, and the external os was so small that not even the point of a uterine sound could find entrance. There was a group of small fibroids to be felt encircling the lower uterine segment, and the bleeding was profuse during the examination.

Abdominally variations in consistence due to contractions and relaxations of the swelling could be made out. There was some irregularity in outline, but no fœtal parts could be discovered. There were no fœtal heart sounds, nor was there a uterine souffle to be heard. There was some free fluid in the abdomen.

I came to the conclusion that the condition was either a fibroid uterus complicated by pregnancy, placenta prævia with fibroids in the lower uterine segment, or a hydatidiform mole. No vesicles or suspicious discharge had come away.

Here then one was face to face with a woman in a most exhausted state from hæmorrhage and manifestly dying unless prompt measures could be taken. And here is the point where the treatment I adopted may come in for criticism. The patient was in a lonely farmhouse, six miles at least from the county town and hospital, with no appliances and no nurses at hand. We decided to take her at once by motor to the Cottage Hospital, and there carry out the necessary treatment. In view of the uncertainty of the diagnosis, and the danger which would attend forcible dilatation of a rigid cervix in a patient manifestly unable to bear any long and tedious operation, I was averse to this form of vaginal interference. I considered the question of vaginal hysterotomy and evacuation of the uterus, keeping in view the possibility of a hydatidiform mass in a fibroid uterus, and the presence of the free fluid in the abdomen possibly indicating uterine erosion; also that the patient was 49 years of age and would have no further use for her uterus. The uterus if left in such circumstances might prove a positive source of danger to her if it were maimed and eroded, not to speak of the remoter risk of chorionepithelioma. In consideration of all this I decided against the vaginal route, and determined to open the abdomen.

Dr. Lees skilfully anæsthetized the patient, and with Dr. Johns' kind assistance and that of the capable nursing staff in the Nairn Cottage Hospital, I operated rapidly, removing the uterus by supra-vaginal hysterectomy, and the patient was back in bed in little

over half an hour. There were about two quarts of free fluid in the abdomen. The ovaries were not interfered with.

The patient made a rapid and uneventful recovery, and when last I heard she had resumed her active life, and feels as if she had been resurrected.

Hysterectomy, of course, is not the orthodox or routine method of treatment for hydatidiform mole, but I submit that in the circumstances it was the best course—probably the only course which would have saved this patient's life. I can only find four other cases where a uterus containing a hydatidiform mole was removed by abdominal section. The *first* is recorded in our *Transactions* by Christopher Martin in 1896; *another* by Favell of Sheffield (*North of England Obstet. and Gynæcol. Trans.*, 1907), a drawing of which, by the kindness of Dr. Fothergill, I now show you; a *third* by Sauvage in the *Annales d'Obst. et de Gynécologie* for last April; and a *fourth* operated on no later than last Saturday at St. Mary's Hospital, Manchester, by Dr. Fothergill, who tells me that in this case there was enormous distension by hydroperitoneum without obvious cause.

Two other points of interest are: first, the age of the patient—49—in relation to the incidence of hydatidiform mole; and, secondly, the presence of so much free fluid in the abdomen without any evidence in the specimen (as in Fothergill's case) of complete uterine erosion or perforation.

The fluid was not blood-stained in my case, and it may possibly have been the result of the cardiac weakness, though in that case one would have expected to find some albumen in the urine. On the other hand, it is just possible it might arise from exudation through the uterine wall, as the uterus itself was distinctly œdematous.

Rattray, in vol. i of our *Transactions*, 1869, records a case of hydatidiform mole in a woman of 50, and Kehrer and Bloch give the following interesting tables of a series of cases showing the age of incidence of these moles:—

Kehrer, "Uber Traubenmolen," *Archiv f. Gynäk.*, 1894, xlv, 486:

2 cases, *i.e.*, 4 per cent., before 20.
19 cases, *i.e.*, 38 per cent., between 21 and 30.
18 cases, *i.e.*, 36 per cent., between 31 and 40.
9 cases, *i.e.*, 18 per cent., between 41 and 50.
2 cases, *i.e.*, 4 per cent., in 52nd and 53rd year.

50 cases.

Kehrer reports Bloch in his paper:—

15 cases between 20 and 30.
20 cases between 30 and 40.
14 cases between 40 and 50.

Kehrer's figures of incidence of mole after 40=22 per cent.
Bloch's figures of incidence of mole after 40=28·5 per cent.

I would like to express my appreciation of the artist's skill in reproducing my specimen, and of the exceptionally beautiful sections which have been cut and mounted by Mr. Tom Hamilton in the Royal College of Physicians Laboratory.

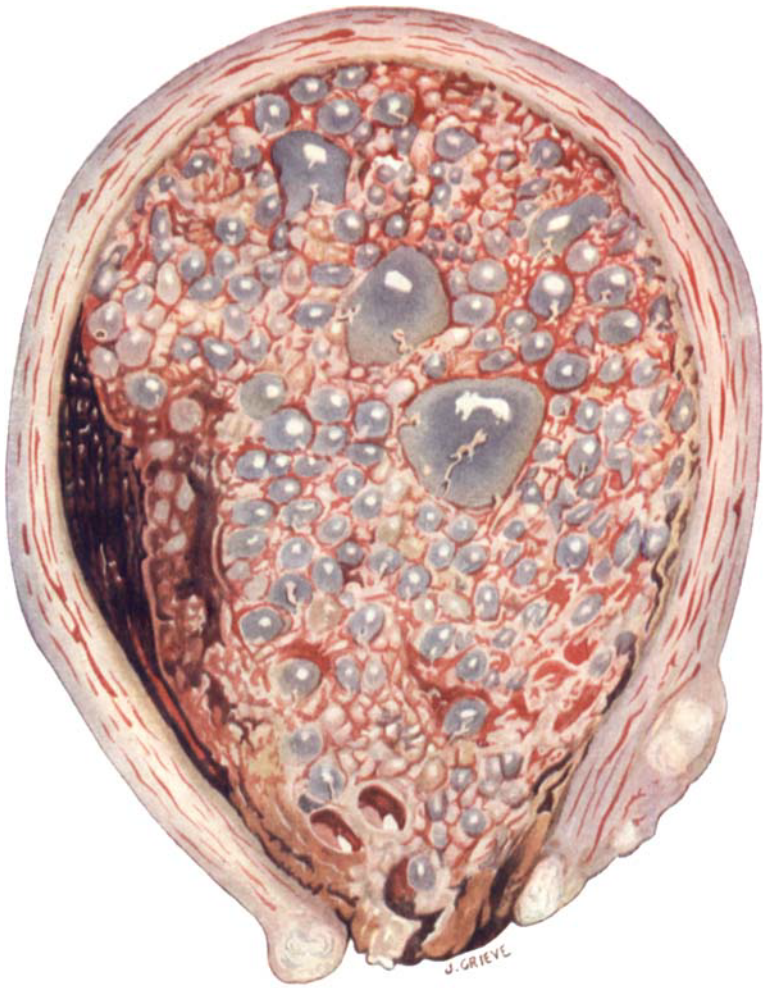
Description of Specimen by Dr. James Young:—

In the *fresh state* the uterus was enlarged to the size of a six months' pregnancy. The enlargement was uniform, and except that it was of firm consistence throughout, in appearance it suggested the pregnant state. It was removed at the level of the isthmus. From the uterine canal several hydatid vesicles were projecting, with some blood-clot.

After hardening in formalin the uterus was cut in the sagittal mesial line, when the remarkable demonstration of a hydatid mole *in situ* represented in Plate I was seen. The uterus is uniformly expanded by the mole, the wall being about one-third of an inch thick throughout. The vesicles are of greatly varying size, some being as large as half an inch in diameter. They are closely packed together in a matrix of blood. Round the greater part of the surface the vesicles lie close up against the uterine wall. At no place is there any evidence of extensive erosion, though in one of the sections one of the villi is seen to lie in a small bay excavated in the uterine wall. Round the rest of the surface the muscular coat presents a gently undulating appearance, the shallow depressions thus produced being occupied by the expanded villi. It is remarkable that there is no more evidence than there is of an erosion process, and it is interesting to see that the destruction of uterine tissue has been almost uniform throughout. There is in no place, either in section or on the peritoneal surface, any evidence of perforation of the uterine wall. From the point of view of the naked eye appearances the condition corresponds to a benign invasion. On the back of the uterus low down there is a small fibroid.

At the anterior aspect of the section there is an elongate space, $2\frac{1}{2}$ inches in length, which is occupied by blood-clot. At this region the mole is separated by the blood space from the muscular wall. The naked eye appearances suggest that this is the uterine cavity. Over the surface of the mole in this region there is seen a thin layer of tissue which at either end is attached to the wall of the uterus. If the blood be in the uterine cavity this will correspond to the reflexa (Plate I and II).

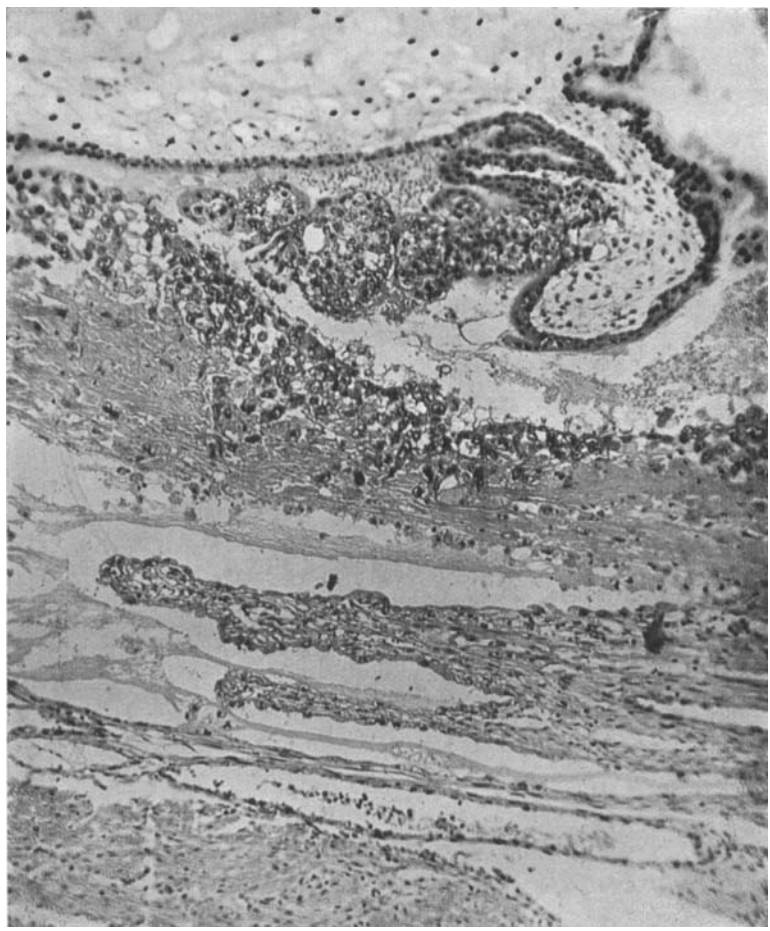
The naked eye relations are well brought out in the thin section obtained by imbedding and cutting a slice of the complete uterus in celloidin (Plate II).



Hydatid Mole *in utero*. Shows expanded villi lying in fluid blood. To the left the uterine cavity is seen filled with blood-clot. Small fibroids are seen in the lower part of the muscular wall.

Plate II.

Plate III.



In upper part a hydatid villus is seen showing marked epithelial proliferation. Under this is the degenerated uterine wall.

Microscopic appearances. In all the regions of attachment of villi to uterus the ordinary appearances associated with a chorionic invasion are seen. There is a necrotic layer of tissue permeated with blood. There is in places a well-marked decidua. The vessels are greatly expanded in the decidua and throughout the muscular coat and everywhere the tissues are œdematous (Plate III).

In the region corresponding to the uterine cavity the mole is seen to be covered by the fine layer already referred to. This is seen microscopically to consist of fibrinous tissue. On the further side of the blood-clot in this region, *i.e.*, on the uterine wall corresponding to the mucosa lining the cavity there is a well-marked decidua—the decidua vera.

The microscopic investigation confirms the naked eye appearances in demonstrating the absence of any invasion of the uterine muscle of a malignant nature.

REFERENCES.

Christopher Martin. *Edinburgh Obst. Trans.*, vol. xxi, 1896.
Favell. *North of England Obstet. and Gyn. Trans.*, 1907.
Sauvage. *Annales d'Obst. et de Gynécol.*, April 1913.
Fothergill (Manchester), 1913. (Case not yet published).
Kehrer. *Archiv f. Gynäk.*, xlv, 1894.