

Section of Obstetrics and Gynæcology.

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A Case of Hydatidiform Mole with Multiple Small Syncytial Infarctions of the Lungs.

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Clinical Notes.—Mrs. C., aged 24, admitted April 13, 1928, complaining of vaginal bleeding for two weeks, at first associated with extra work, but later there was a slight continual loss even when in bed. Since the previous January, the patient had considered that she was pregnant, because of amenorrhœa, morning sickness, and other symptoms of the condition. The material lost had been blood and jelly-like clots. During the four days immediately before admission, she had noted increasing weakness, and at times had felt "shivery." Throughout the course of her illness she was short of breath. For the last seven days she had also noticed that a lump, which had appeared in her abdomen, had rapidly increased. She vomited before admission. Obstetrical history normal; two children, the younger aged 9 months. Menstruation was re-established two or three months after the second confinement and was regular, occurring every twenty-eight days and lasting for five. The loss was not excessive, and the only trouble was some backache before the onset of the flow. There has been no inter-menstrual discharge. General health was usually good; no previous illnesses of importance.

Condition on Admission.—Temperature 98°, pulse-rate 104, respiration-rate 24. The patient was a pale young woman; pale faced; lips and cheeks rather dusky; lying quietly in bed. Breasts tender; secretion was expressed. Heart and lungs: no abnormal signs. Abdomen: a centrally placed tumour rising out of the pelvis, reaching to within 2 in. of the xiphisternum. On palpation this was smooth and regular in outline, but there were definite alterations in its tone. No foetal parts could be felt, or foetal heart sounds heard, but a uterine souffle was detected. No tenderness in the abdomen. Vaginal examination: introitus healthy; no obvious vaginal bleeding or other discharge; cervix pointing downwards and backwards; it was softened; os admitted tip of index finger. The abdominal tumour was continuous with the cervix. No internal ballotement. Fornices normal. No blood found on glove after examination. The urine revealed no abnormality.

For some hours after admission no alteration in the patient's condition was noticed, but at 7 p.m. her general condition became grave; the temperature and pulse-rate rose to 100° and 118 respectively, and toxæmia was apparent accompanied by drowsiness and poor cerebration. She was definitely cyanosed and dyspnoëic, the respiration-rate being 28. An anæsthetic was given, and the previous physical findings were confirmed. A probe was passed into the uterus, and free bleeding resulted. The general condition was causing such anxiety that no attempt was made to empty the uterus, but the cervix and vagina were swabbed with methyl-violet, and the vagina was plugged in the hope that the uterus might be stimulated to empty itself. From this time onward the patient became steadily worse, the most remarkable evidence being a rapidly deepening cyanosis and progressive dyspnoëa. The mental condition also deteriorated and eventually the pulse failed and the patient died at 11 p.m.

¹ ACKNOWLEDGMENT.—The patient whose history is here recorded was under the care of Dr. J. Bernard Dawson (Honorary Assistant Gynæcologist) to whom I am indebted for permission to make the report.

*Post-mortem Examination.*¹

On opening the abdomen the uterus was found to contain a hydatidiform mole and the right ovary a mature corpus luteum. The cervix was dilated, admitting one finger, and there were some abrasions on it and a deep cut on the anterior surface. The heart was normal and empty of blood-clot. The blood, where present in veins in the body, was fluid. The lungs were deeply congested and plum-coloured and contained little air except in small areas on their median and anterior aspects; small portions floated in water. The left lung weighed 28½ oz., the right 30¼ oz. The liver was enlarged and pale. The spleen was large and congested, but not friable; it weighed 11¼ oz. The suprarenals were normal. Microscopic examination showed a few globules of fat in the liver and no definite changes in the heart. The spleen was congested and contained a small syncytial mass, also a fibrosed patch with necrosis, probably an old tuberculous focus. Sections of the lung showed the alveoli in places partly collapsed and partly filled with red cells as in an infarction. A number of large multinucleated masses, definitely portions of foetal syncytium, were seen. Some of these were noticed jammed in small arterioles. The septa of the lungs were sometimes œdematous.

There seems no doubt that the condition in the lungs was due to multiple small syncytial infarctions leading to the escape of red cells into the alveoli and to partial collapse. So extensive were these lesions that respiratory embarrassment might have been anticipated, and it will be noted that the patient became cyanosed before death. It would seem that death must be attributed to this flooding of the pulmonary circulation with masses of foetal syncytium. It is hard to say why these were liberated to such an extent. It is known that small masses frequently become detached and can be found in the lungs.

Comment (Dr. J. BERNARD DAWSON).—Hydatidiform degeneration of the chorionic villi is usually accounted a rare condition, but it occurs much more frequently than is stated in the textbooks, or is apparent from the experiences of medical men in extensive obstetrical practice. The reason for this discrepancy is that it is usually only the older vesicular moles that are reported, whereas the condition is very common in the earlier months—perhaps the earlier days—of pregnancy, accounting for a considerable proportion of abortions. In the *Medical Journal of Australia* of August 18, 1928, the writer, in conjunction with Professor H. Woollard, of the University of Adelaide, reported the result of an investigation of a human ovum of eighteen days of menstrual age. It was clear from a careful study of this very early ovum that the villi were already undergoing a hydatidiform change.

In "Contributions to Embryology," issued by the Carnegie Institution of Washington (vol. xii), A. W. Meyer states that vesicular change detected in the later months of pregnancy is relatively rare, estimates ranging from 1 in 2,000 to 1 in 300 cases. On the other hand "the actual life incidence of hydatidiform degenerations in all gestations would then be 1 in 10, as based upon Pearson's—and 1 in 25 as based upon Hall's—estimated prenatal mortality."

In this same contribution Meyer further points out that this chorionic change cannot be regarded as a particularly dangerous one for the mother. The deaths reported are mainly due to subsequent chorion epithelioma. Findlay (1917) found that chorion epithelioma developed in 131 out of 500 cases collected by him. This incidence of 26% is undoubtedly too high, for, though many cases are reported because of the malignant sequel, other more fortunate cases pass unreported.

Again, such figures are based upon a study of older moles of advanced degeneration which have been retained for some time. The tendency to malignancy in these cannot be compared to that in smaller and younger specimens, many of which are aborted entire with the surrounding decidua.

The cause of death in the case reported above by Dr. Hughes is most unusual; in fact, we are unaware that any such case has previously been reported. In considering the case several facts must be borne in mind: (1) the method of implantation of the fertilized ovum in the uterus as shown by Peters, Teacher and Bryce, Mollendorf

¹ For this I am indebted to Professor Cleland, Honorary Pathologist, Adelaide Hospital.

and others, clearly indicates that there is a normal and extensive invasion of maternal capillaries by trophoblastic epithelium. (2) It is shown that occasional trophoblastic fragments escape into the systemic circulation even during pregnancies that are apparently normal. In 1904 Schmorl examined the lungs of 158 women who had died at different stages of pregnancy or after delivery. He found chorionic cells in the pulmonary capillaries of 80% of the bodies of these whose pregnancies had been normal. (3) Hydatidiform moles inherit this invasive property in greater or lesser degree. Some of them are apparently wholly innocent, others are capable of local invasion, others of more extensive forays upon the systemic circulation, and others, the precursors of chorion epithelioma, are frankly malignant. (4) The degree of malignancy seems to depend upon the proportion between the epithelial and the primitive mesoblastic content of the villi. The greater the epithelial content the greater the malignancy. (5) In this particular case, for some reason unknown, a hydatidiform mole of apparently innocent type suddenly and unexpectedly invaded the uterine venous system with subsequent rapid infarction of the lungs.

Dr. JAMES YOUNG said that this case reminded him of one reported to the Edinburgh Obstetrical Society some years ago by Professor James Miller, in which there had been a similar metastatic spread of the hydatidiform elements. In that instance, however, the entire chorionic villi were recognizable in the secondary lung growths.

The Treatment of Prolapsus Uteri.

By WILLIAM FLETCHER SHAW, M.D.

WHEN a man has been brought up from youth to treat a certain condition in a certain way, when he finds that all his colleagues treat the same cases in the same way, and when he finds that almost all cases treated by himself and his colleagues are cured with very slight operative mortality, he may be pardoned for feeling a little surprised that this treatment is not universally adopted.

Thanks in a large measure to the publications of the late Professor Fothergill, this operation of colporrhaphy for prolapsus uteri has been adopted in many centres all over the world, nevertheless the fact remains that many centres still adhere to other methods of treatment, and rarely can a gynæcological journal be opened without finding an article on somebody's method of treating prolapse, supported in many instances by statistics so bad, that one wonders why they were published. For this reason I am bringing before this Society the results of this operation as practised in the Manchester school since its introduction by Professor Donald over forty years ago.

Causation.—It is an axiom in medicine that to select the best treatment it is necessary to discover the cause, and in the case of mechanical displacement it is necessary to go a step still further backward and discover what keeps the organ in normal position.

In the case of the female pelvic organs it was long since pointed out by anatomists that the tissue, fibrous and muscular, running from the fixed pelvic sheaths to the uterus, roughly following the uterine artery and its branches, was the main tissue which supported the uterus, while connections of this tissue running forward and backwards to the pubic arch and coccyx and, deeper still in the pelvis connected with the sphincter vaginae and levator ani, supported the bladder, rectum, and vagina. This is well recognized by gynæcologists to-day and I do not propose to dwell upon the anatomy. It is, however, only in recent years that this has been generally recognized, for, although certain anatomists had described this tissue, and a few gynæcologists had devised operations which depended upon this knowledge, it was, I think, Fothergill's racily written paper in 1908—a paper well worth re-perusal—which called wide attention to the subject. The only point upon which I am not in full agreement is the statement that this tissue surrounds the uterine artery and