HYDATIFORM MOLE, WITH REPORT OF TEN CASES*

BY GEO. L. BRODHEAD, M.D., AND FRED. A. KASSEBOHM, M.D.,
NEW YORK, N. Y.

THE rare occurrence of hydatiform mole is evident from the reports of recognized authorities. Edgar has seen it four times in 15,000 cases of labor observed in hospital and private practice and states that the condition tends to recur. He also quotes Mayer as reporting eleven recurrences in one patient. Pozzi (1909) stated that he had never seen an hydatid mole in over 6000 cases of labor observed in his hospital and private practice and Madame Boivin saw it once in 20,000 cases; Mayer (1911) reported one case in 310 and Donskoj (1911) stated that the incidence of hydatid mole at the Frauenklinik at Munich over a period of sixteen years was only one for every 4058 births. At the Harlem Hospital on our service we have seen six cases in 12,030 cases of labor and abortion, or about one in 2000, covering a period of eight years from January 1, 1914, to November 30, 1921. In addition to our six cases from the Harlem Hospital service we are able to add the reports of four cases, for three of which we are indebted to Dr. E. G. Langrock of this city, one being a private case of Dr. G. L. Brodhead.

PATHOLOGY

The nature of an hydatid mole has been the subject of much controversy; Virchow taught that they were simply myxomatous hypertrophied chorionic villi. Arthur W. Meyer in 1918 mentioned the importance of the work of Gierse published after his death by Meckle in 1847; Gierse claimed that definite transitional forms could be traced between the slightest change in the caliber of the villi and the most marked hydatid change. He described a villus showing hydatid degeneration from a chorionic vesicle about 12 mm. in size with the largest hydatid one-third of a line large; and further stated that such pathological changes are present in many abortions and seem to be the most frequent cause of abortion in the early weeks of pregnancy. While the work of Gierse has been either overlooked or disregarded by numerous writers and investigators and did not receive general recognition, his findings have been confirmed by Meyer's work at the Carnegie Institution in Washington.

Regarding the formation of chorioepithelioma following hydatid mole, quite a difference of opinion exists. Findley says that 16 per

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cent of hydatid moles are followed by malignancy; Teacher believes that less than 5 per cent develop malignancy. DeLee states that chorioepithelioma (chorioma syncytioma malignum) gives a previous history of hydatid mole in about 50 per cent of cases, but he has had sixteen cases of mole none of which have developed metastases, nor have 75 others reported by König, Giglio and Kehrer. DeLee further states that the entire chorion may be changed or only a portion, leaving part of the placenta intact; pathologists, however, are not certain whether degeneration precedes the death of the fetus or follows it; probably both. Wood states that there are cases on record where a long period of latency (5 years) intervened between pregnancy and tumor formation.

INCIDENCE

In our ten cases three occurred between 20-25 years, three between 26-30; one between 31-35; two between 36-40; one between 41-45. The average age of these cases is 30.4 years, agreeing with the six cases of Poten with an average age of 32 years, ten of Donskoj at 25 years, twenty-three of Briggs at 28 years, six of Gromazki at 29.6 years and eight of Robertson at 28.4 years; also confirming the findings of Williamson who denied that hydatiform mole was especially common near the menopause.

PARITY

Three cases occurred in primiparae and seven in multiparae.

RACE

It is rather curious to observe that on a service which is composed of a greater proportion of negroes, that all of our six hospital cases occurred in white patients.

PERIOD OF GESTATION

One woman was two months pregnant; one, three months; four, four months; two, five months; one, five and one-half months; and one seven months. These statistics coincide with Meyer's statement that hydatiform degeneration is a common disease in the early weeks of pregnancy, being less frequent as term is approached.

APPARENT SIZE OF UTERUS

The patient who was pregnant two months showed an apparent size of two months, and the patient pregnant three months showed an apparent size of that period. The four women having a four months' period of gestation showed an apparent size of six months for two

cases, six and one-half months for the third case and seven and one-half months for the fourth case. Two women having a five months' period of gestation showed an apparent size of three months for one and five months for the other. Another patient five and one-half months pregnant showed an apparent size of three and one-half months while one who was seven months pregnant showed an apparent size of five months. This would tend to bear out the contention of Briggs that uterine enlargement in hydatiform mole is frequently not beyond the normal, which is contrary to the general belief.

WEIGHT OF MOLES

Unfortunately we were able to secure the weight of but five of our specimens, the largest of which weighed 1050 grams. This mole was extracted from a patient 40 years of age, a six para, period of gestation four months but with a uterus that had an apparent size of from seven and one-half to eight months. The red blood count after the manual extraction of the mole was 1,568,000, hemoglobin 30 per cent, and 900 c.c. of blood was given intravenously by the Unger method; two days later the red blood count was 2,240,000, hemoglobin 40 per cent; four days after this her hemoglobin had gone down to 30 per cent again and her red blood count to 2,096,000. The patient again received 800 c.c. of blood by transfusion; on the fourth day following this last transfusion her red blood count was 3,972,000, hemoglobin 65 per cent and she made an uneventful recovery. This patient has gained thirty pounds since she left the hospital in May, 1921. The other four moles weighed 896, 608, 384 and 256 grams, respectively.

TEMPERATURES BEFORE OPERATION

The temperatures before the delivery of the moles were as follows: Five patients had a normal temperature on admission and before delivery; one patient had a temperature ranging from 98.6° F. to 101° F. for two days before the extraction of the mole; one had a temperature of 100° F.; one had a 100.4° F.; one had 102° F.; and another had a temperature of 102.4° F. on admission, which rose to 104.4° F. before removal of the mole.

TEMPERATURES AFTER OPERATION

Three patients had a normal temperature after the extraction of the mole. Five patients had temperatures ranging from 101° F. to 103.4° F. for 24 to 72 hours after operation, returning to normal thereafter. One patient had a chill and temperature of 104.8° F. two hours after the extraction of the mole, becoming normal the following day. One patient, septic on admission, ran a temperature fluctuating between 102° F. to 104° F. for three weeks and then became normal.

URINARY EXAMINATIONS

The urine was examined in five of our ten cases. In four were revealed evidences of a nephritis, showing large amounts of albumin and many hyaline and granular casts; the other case showed a practically normal urine.

FETUS

DeLee (1918) states that ordinarily all traces of a fetus have disappeared but there are cases on record where a fetus has been present. In one of our series a perfectly formed four months' fetus was found. This is the only instance in hospital and private work, in our experience, where a fetus had been seen, and Edgar in a personal communication, states that he cannot recall a case where this occurred.

CLINICAL HISTORY

All of these patients gave a history of irregular bleeding without pain, or a serous or sanguineous discharge containing vesicles. The septic patient had bled for seven weeks prior to admission; in another instance the patient stated that the fetus had been discharged one month prior to admission; in another instance the patient had bled for two months prior to admission to the hospital; in only four of our cases was the enlargement of the uterus out of proportion to the period of pregnancy and curiously enough all of these women were apparently four months pregnant. In three of our cases the uterus was actually smaller than the supposed period of gestation. It is interesting to note that in three of our cases, hydatid mole was found in the first pregnancy. Four multiparae had had no previous miscarriage. One multipara had had one miscarriage seven years before, and two multiparae had had three previous miscarriages.

SUBSEQUENT HISTORY

All of the patients left the hospital in good condition within two weeks after removal of the mole with the exception of one woman who had a mild sepsis and remained three weeks in the hospital before her temperature returned to normal, when she also returned home in good condition.

We have endeavored to locate these patients in order to ascertain any subsequent developments and succeeded in getting in touch with six of them; they were all in excellent health and one (whose history I read before and who had passed a mole in May, 1921) has gained thirty pounds. The patient who became septic had a hysterectomy for uterine fibroids four months after leaving the hospital. She is now in good condition; no evidence of chorioepithelioma was found on pathological examination of her uterus. DeLee states that the

maternal mortality in hydatid mole is 13 per cent and gives the causes of death as hemorrhage, sepsis, uterine perforation and peritonitis.

TREATMENT

The treatment in all of these cases was manual removal of the mole where the mass had not been expelled spontaneously. We performed a digital curettage of the uterus; in some of the cases where we suspected the retention of some of the degenerated products of conception we first removed any débris with placental or sponge forceps before doing the digital curettage. The guarded use of a blunt curette may occasionally be necessary but we wish to caution against the use of a sharp curette on account of the extreme lack of resistance of the uterine musculature and the consequent danger of perforation. In all cases we were prepared to pack the uterus with iodoform gauze in the event of hemorrhage and inasmuch as hemorrhage is at times an alarming symptom it would be wise to make preparation for a transfusion.

CONCLUSIONS

1. That hydatid degeneration may occur at any age and at any period of pregnancy, being much more frequent however in the early months.

2. That on account of the toxic symptoms frequently shown the condition is easily mistaken for the toxemia of pregnancy until bleeding occurs and the appearance of vesicles clears up the diagnosis.

3. The uterus may be enlarged out of proportion to the period of gestation but as shown in our series of cases this is not the rule (four only showing such enlargement, while three were actually smaller).

4. These patients who have had hydatid mole should be kept under close observation for a period of years on account of the possibility of the development of chorioepithelioma.

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50 WEST FORTY-EIGHTH STREET.

95 WEST ONE HUNDRED AND NINETEENTH STREET.