The patient has been followed up for four years. There have been no further attacks, and she has been in good health.

Investigation of the alimentary, renal, and biliary tracts revealed no possible source of origin of the enteroliths. Biochemical analysis indicated that they were composed mainly of organic debris, with some fat and lipid matter, and a moderate amount of calcium and magnesium phosphates.

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Discharge of Foetal Bones by the Rectum

Case Report

A primigravida aged 23 sought medical advice on May 15, 1950, complaining of having had severe lower abdominal pain for the previous seven days. She was approximately 20 weeks pregnant by her dates.

On examination a tender tumour was found arising out of the pelvis to within two fingerbreadths of the umbilicus. There was no vaginal haemorrhage. A pelvic examination under general anaesthesia was then carried out, and it was decided to terminate the pregnancy. A Drew Smythe catheter was accordingly passed through the cervix into the uterine cavity. It was felt to pass through the wall of the uterus before it was removed. Uterine bleeding followed immediately, but no liquor amnii was withdrawn. On May 16 and 17 the patient's condition rapidly deteriorated, and on May 18 she was admitted to the Royal Salop Infirmary with a diagnosis of general peritonitis.

Her general condition was then extremely poor. The abdomen was distended, rigid, and uniformly tender to palpation. No intestinal sounds were audible. There was no vaginal discharge. She was treated by gastric suction, continuous intravenous saline drip, and the administration of streptomycin and morphine. A blood count on May 22 showed: Hb, 40%; red cells, 2,600,000 per c.mm.; white cells, 14,000 per c.mm. (77% neutrophil polymorphs). After a blood transfusion of 2 pints (1.14 l.) the haemoglobin rose to 60%. At this time no pathogenic organisms were isolated from a catheter specimen of urine, but vaginal swabs showed a heavy contamination with *Bact. coli*.

A week after admission the patient's condition had improved, though the temperature still ranged between 100 and 102° F. (37.8 and 38.9° C.). The Friedman test was positive and remained positive until June 5. An x-ray film taken at this time revealed a single foetus, estimated at 17 to 20 weeks old. It was thought to be dead and associated with an abscess, either of the uterine wall, of the pelvic cellular tissue, or of the peritoneum. Operative measures were postponed until the patient's general condition should improve or the abscess point into vagina or rectum.

By repeated blood transfusion the haemoglobin was maintained at 60%. The white blood cells remained at 14,000 per c.mm. A moderate growth of *Bact. coli* was obtained on urinary culture, but blood cultures were sterile. Despite the administration of penicillin and "aureomycin" the temperature constantly rose, maintaining its swinging character until, by June 30, it had reached 105° F. (40.6° C.). On the following day offensive pus suddenly appeared in the urine in great quantity, and suction drainage of the bladder by means of White's apparatus was instituted via an indwelling catheter. From this time onwards the patient made a slow but steady recovery.

On July 5, however, she had a moderately severe diarrhoea and two days later passed a foetal tibia by the rectum; a few days later still she noticed the occasional passage of flatus

by the urethra. A radiograph taken at this time failed to show any foetal bones. A month later, though the patient was very much better, the abdominal and pelvic signs were unchanged and the passage of flatus by the urethra continued, and on September 14 it was possible, on bimanual examination, to distinguish a normal-sized uterus clearly separate from an abdomino-pelvic tumour, which still extended to within two fingerbreadths of the umbilicus. This made a diagnosis of advanced extrauterine pregnancy certain.

On September 26 the abdomen was opened under general anaesthesia, through a midline sub-umbilical incision. An ectopic sac, the size of a grape-fruit, was found situated above the body of the uterus. The posterior wall of the sac was firmly adherent to coils of intestine, and its anterior wall was intimately blended with the wall of the bladder. The uterus appeared normal. No trace of the left Fallopian tube or ovary could be found. There was a right tubo-ovarian cyst. In an attempt to separate coils of intestine from its wall the ectopic sac was torn through, exposing foetal bones and placental debris within. The foetal bones, the placental debris, and most of the wall of the sac were removed, but no attempt was made to remove that part of the sac wall which was blended with the bladder. A small fistula of the lower ileum, through which the latter had communicated with the cavity of the sac, was found and closed. The right tubo-ovarian cyst was removed, conserving such healthy ovarian tissue as remained. The wound was closed with drainage, and an indwelling catheter was inserted into the bladder.

The patient was discharged from hospital on the 25th day after operation. Three weeks later she was symptom-free and the wound was healed.

Comment

Although Gould and Pyle (1898) state that discharge of foetal bones or even the whole of an extrauterine foetus by the rectum is not uncommon, and quote 22 cases from the literature of 1731 to 1886 in support of their statement, few cases have been reported in the literature of the twentieth century. While the majority of such cases are due to the presence of an advanced extrauterine pregnancy, previous gross trauma to the birth canal may on rare occasions lead to a similar result.

Perry and Saltzman (1938) report an interesting case of delivery through the rectum of a foetus of 5 months which was extrauterine. Illustrative of a traumatic cause is the rare case of a native Indian woman in whom the cervix of the uterus opened into the rectum, and a normal intrauterine pregnancy terminated at term in a rectal delivery (Patel, 1937). Although it is theoretically possible for the cervix to enter the rectum as a developmental abnormality, it is far more probable that severe trauma at a previous birth had resulted in this anomaly.

Preston (1937) reports a case in which gross scarring of the lower end of the vagina due to ritual circumcision resulted in so severe an obstruction to a vaginal delivery at term that the foetus was born by the rectum.

I am indebted to Professor Chassar Moir, Mr. Charles Read, and Mr. S. Davidson for their kind interest in my case. My thanks are also due to Mr. J. A. Baty, who provided me with the notes he made while the patient was under his care, before she was transferred to the gynaecological department.

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