ADVANCED ABDOMINAL PREGNANCY WITH SKELETONISATION OF FOETUS

(Report of a Case)

by

O. FRANCIS,* M.D., D.G.O.

This case is reported because of its extreme rarity. The first recorded case of suppuration with skeletonisation of the foetus in an advanced abdominal pregnancy is perhaps that of Albucasis, the Arabian surgeon, which occurred about a thousand years ago. In this case a swelling developed in the umbilical region which burst and let out pus and later he extracted many foetal bones from it. A similar case was reported by Mahfouz Pasha in 1938. In more recent years, Gordon King (1954) reported one case, in which the patient passed a bone per rectum, which she thought was a "chicken bone", but identified as a foetal femur. This case is of particular interest because an almost complete set of foetal bones was removed from the foetal sac and its photograph published. In my case I could get a more complete set of foetal bones. Nowadays, such cases are extremely rare, because of early recognition and prompt treatment of ectopic gestations.

The dead foetus in an abdominal pregnancy may undergo various changes, like maceration, calcification and formation of lithopaedion; mummification and adipocere formation or suppuration and skeletonisation. Maceration occurs rapidly after the death of the foetus. The liquor amnii gradually gets absorbed and the foetal sac shrinks. After a few days x-ray taken will show Spalding's sign, i.e. overlapping of the cranial bones, which results from softening and shrinking of the brain, and Ball's sign, i.e. hyperplexion of the foetal spine and compression of the whole foetal skeleton, giving the foetus a "rolled up" appearance. Suppuration is likely to occur when the foetal sac gets adherent to the intestines and becomes infected. In this, the contents of the sac break down and the foetus undergoes skeletonisation. Here, x-ray will show a mass of bones, piled together without any order. The pus and disintegrated contents get discharged through the anterior abdominal wall, usually at the umbilicus, or through the bowel, bladder or posterior vaginal fornix. It is very rare for the infected sac to rupture into the general peritoneal cavity because the surrounding intestines get closely adherent to it as a result of the inflammation. If suppuration does not occur, and the

* *Professor of Obstetrics and Gynaecology, Madurai Medical College and Obstetrician and Gynaecologist, Government Erskine Hospital, Madurai.*

Received for publication on 28-11-62.

foetus is retained for some time, it may get mummified, wherein the foetus placenta and membranes get dried and shrivelled up by the absorption of the fluid in the tissues, or it may form an adipocere, i.e. gets converted into a yellowish greasy substance, or it may get calcified and form a lithopaedion which is likely to occur where the foetus has been retained in the abdomen for several years, for example 20 years in Gordon King's case. The calcification may be limited to the membranes only when it is called lithokelyphos or it may affect the foetus only, when it is called lithotecnon, or the foetus, placenta and membranes may all get calcified, when it is called lithokelyphopaedion.

Case Report

P., a primigravida aged 22 years, was admitted on 18th July 1962 with a complaint of amenorrhoea of 10 months followed by bleeding per vaginam for about a month and subsequently whitish discharge for the past 2 months.

Previous History. She attained puberty 14th year, married 15th year. Periods regular $\frac{2\text{-}3}{30}$ moderate flow, painless. No history of abortion or any other illness before.

On enquiring into the present history it was found that she had nausea and vomiting from the 3rd to the 5th month of pregnancy and had giddiness in the 3rd month which lasted for 2 days. She could feel foetal movements from the 5th month onwards. At the beginning of the 9th month, she felt sudden spasmodic pain in the abdomen. From that day onwards, she felt the foetal movements becoming less and less and after 2 weeks, they stopped altogether. About 2 weeks after this, i.e. early in the 10th month, she noticed bleeding per vaginam in which a small piece of whitish tissue was passed. This bleeding lasted for about one month and this was followed by whitish and slightly offensive discharge in which she found small pieces of tissue and occasionally small pieces of bone. During this period of 3 months of bleeding and whitish discharge, she found her abdominal swelling gradually reducing in size.

Condition on admission: Patient fairly well nourished, not anaemic.

C.V.S. and R.S. — N.A.D.

Per abdomen: A hard mass felt from about 2″ above the symphysis pubis to about 2″ above the umbilicus, major part occupying left of the middle line somewhat fixed, and some foetal parts like bones and crepitus felt in it.

P.V. Cervix directed forwards. Uterus in mid-position, slightly enlarged and firm, appeared to be in close association with the lower part of the mass felt per abdomen. A small indurated area felt in the posterior vaginal fornix, but no opening felt there nor seen when viewed with speculum.

B.P.: 110/72 mm.Hg., Hb.: 72%, Pulse: 80 p.m., Temp.: 98.4°F.

Total W.B.C.: 7000 per cmm.

Diff. count: Poly. 70%, Lympho. 28%, Eosino. 2%.

Urine — N.A.D.

X-ray showed a mass of bones without any order.

Diagnosis of Secondary Abdominal Pregnancy was made.

On 2-8-62, under gas and oxygen anaesthesia, abdomen was opened. The peritoneum was found much thickened. The foetal sac was found adherent to the abdominal wall anteriorly and on its left side, while on its right and posterior aspect, the intestines and omentum were closely adherent to it, shutting it off from the general peritoneal cavity. Neither the uterus nor the adnexa could be seen. The sac was carefully incised, when bones of the foetal skeleton were found closely packed together without any order and completely filling it. No placenta was seen nor felt. Slight seropurulent discharge was present, which was wiped off and abdomen closed in layers after putting a rubber drain into the sac. There was very little blood loss, but a blood transfusion was given during the operation as a prophylactic measure. She was given achromycin for 5 days. She

had an uneventful post-operative period and she was absolutely afebrile from the 5th day of the operation. There was slight discharge through the drain for 2 days only and the drain was removed on the 3rd day. She was discharged well on 21-8-62.

Comments

In this case the patient must have had a tubal gestation which ruptured intraperitoneally in the third month, when she had the giddiness, and subsequently continued as a secondary abdominal pregnancy. The sudden spasmodic pain which she had early in the ninth month must have been due to false labour. The foetus died two weeks later. The small piece of whitish tissue which she passed with the subsequent vaginal bleeding was probably the decidual cast from the uterus. The whitish and slightly offensive discharge with small pieces of tissue and occasional bone pieces were the disintegrated contents of the foetal sac and these were probably passed through the posterior vaginal fornix, the opening later getting closed, leaving an indurated area.

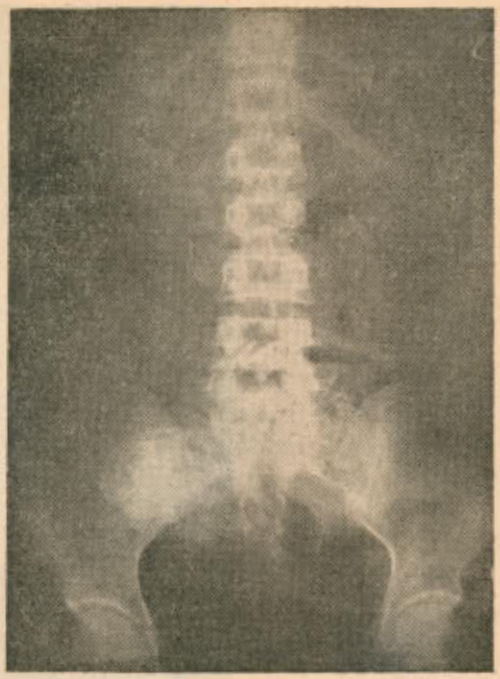

Fig. 1.
Skiagram of the abdomen, taken soon after admission, showing a mass of bones, without any order.

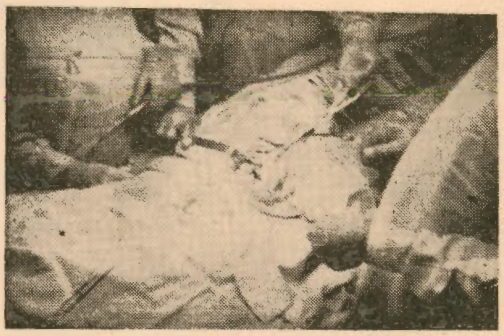

Fig. 2.
Clinical photograph taken during operation, showing the bones being removed from the foetal sac.

References

1. Albucasis quoted by King Gordon: J. Obst. and Gynec.; **67:** 713, 1954.
2. King Gordon: Am. J. Obst. and Gynec.; **67:** 723, 1954.
3. Mahfouz Pasha: J. Obst. and Gynec.; **45:** 209, 1938.

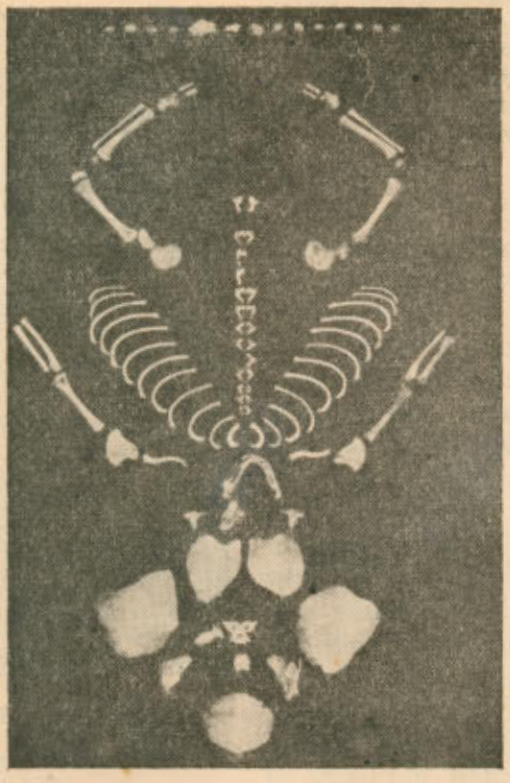

Fig. 3.
Clinical photograph of the bones removed from the foetal sac. and now kept in the Anatomy Museum of the Madurai Medical College, Madurai.