UTERINE RUPTURE FOLLOWING INTRA-AMNIOTIC HYPERTONIC SALINE IN MID-TRIMESTER PREGNANCY TERMINATION

(A Case Report)

by

NAJMA GHOUSE,* M.D., D.G.O.

T. K. MOHANALAKSHMI,** M.D., D.G.O.

and

LALITHA ANANTHASUBRAMANIAM,*** M.S., D.G.O.

Introduction

Intra-amniotic injection of hypertonic saline is being used as a safe method of termination of second trimester pregnancy. Complications resulting from this procedure are being reported by (Alwani *et al*, 1975; Mehta *et al*, 1975). Beller and Rosenberg (1972) have reported the development of coagulation failure. Cameron and Dayan (1966) do not condemn the method but say that it should be used with caution.

Intra-amniotic 20% saline was employed in 475 cases in Government Erskine Hospital, Madurai during the period from April, 1972 to July, 1976 and there was one case of rupture uterus giving an incidence of 0.21%.

CASE REPORT

Mrs. P., 30 years, gravida 4, para 3 was admitted in Government Erskine Hospital, Madurai on 27-7-1976 with a history of 5 months' amenorrhoea requesting termination of pregnancy and sterilization. She had 3 full term normal deliveries the last one being 2½ years back, all children were alive. There was no history of any abortion, prolonged labour, instrumental delivery, manual removal of placenta or curettage. No history of interference with the present pregnancy could be elicited nor any history of trauma.

On examination, patient was not anaemic, pulse 86 per minute, B.P. 110/70, cardiovascular and respiratory systems were clinically normal. As the uterus was of 22 weeks' gestation, it was decided to terminate the pregnancy by intra-amniotic hypertonic saline and to perform the tubal ligation concurrently. On 28-7-1976, under local anaesthesia, abdomen was opened by a transverse incision. The tubes and ovaries were healthy. Bilateral tubectomy was done by modified Pomeroy's technique and 200 ml. of 20% saline was injected intra-amniotically after a free flow of liquor amnii. Liquor was not withdrawn. Abdomen was closed in layers. There were no immediate complications following intra-amniotic saline or sterilization. Twenty-four hours after the instillation of intra-amniotic saline, the patient complained of severe abdominal pain and was transferred to the labour room for observation.

On abdominal examination the uterus was found to be contracting mildly and on vaginal examination, the cervix was effaced, 4 cms. dilated, membranes were absent and foetal feet were presenting. Six hours later, (i.e. 30 hours after instillation of saline) the patient expelled spontaneously a dead female foetus and placenta. Vaginal examination was done to find out whether the abortion was complete and a rent

*Associate Reader in Obstetrics & Gynaecology, (Post-Partum Programme).

**Associate Reader in Obstetrics & Gynaecology.

***Professor of Obstetrics & Gynaecology, Madurai Medical College, Madurai 625 020.

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was suspected in the left lateral wall of the uterus but it could not be confirmed. The patient was closely observed for the next 12 hours. Her B.P. was maintained but the pulse rate continued to be rapid. There was no bleeding per vaginam.

About 14 hours after the expulsion of the foetus and placenta, the patient was re-examined. Her B.P. was 110/70, and the pulse rate was 120 per minute. The uterus was firm and well contracted. The bowel sounds were heard. On vaginal examination, a left lateral tear of the uterus was found and on speculum examination a part of omentum was seen protruding into the vagina on the left lateral side. Hence, a provisional diagnosis of rupture uterus was made and the patient was prepared for laparotomy.

Under general anaesthesia, the abdomen was opened by a right paramedian incision. Few millilitres of altered blood was found in the peritoneal cavity. The utero-vesical fold of peritoneum appeared ecchymosed.

The uterus was lifted up and a tear in the left lateral wall of uterus was visualised, extending 1" below the round ligament and involving the entire lateral wall. (Fig. 1). The tear was found to be plugged by a loop of bowel and a portion of omentum. The left uterine vessel was torn but was found well retracted with slight oozing. Both the ovaries were healthy. There was tubal discontinuity due to previous tubectomy. A subtotal hysterectomy was done and the abdomen was closed in layers.

The patient was put on injection chloromycetin 500 mg. i.m. twice daily for 7 days. The postoperative period was uneventful. The sutures were removed on the 9th day and the wound had healed well and the patient was discharged in good condition on the 11th postoperative day. The histopathological report of the tissue at the site of rupture did not show any abnormality.

Discussion

This case is being reported for its rarity i.e. rupture of the uterus following intra-amniotic instillation of hypertonic saline. Wagatsuma in 1965 reported cervical laceration and uterine rupture following intra-amniotic injection of saline which was very high among primigravida.

In the case documented, there was no history of obstetrical trauma or interference, past or present, though a lateral tear was suspected on routine examination, it was not entertained because of its rarity. The persistent unexplained tachycardia warranted a review of the case. The rupture was diagnosed and was treated.

Summary

A case of uterine rupture in 2nd trimester following intra-amniotic instillation of hypertonic saline is reported.

Acknowledgement

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See Fig. on Art Paper VI