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Case Report

Intrauterine retained fetal bony spicules: an unusual finding in a case of intestinal obstruction

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ABSTRACT

Prolonged Intrauterine retention of the foetal skeleton has not been adequately reported. Ossification represents retained foetal bone following spontaneous, missed, incomplete, or therapeutic abortion after 12 weeks of gestation. Various theories on the existence of osseous tissue within the uterine cavity have arisen from the diagnostic spectrum. However, sporadic cases of osseous metaplasia of the endometrial stromal cells without prior pregnancy loss have been reported. We report the case of an 18-year-old woman with an obstetric score of abortion 1 who presented with an acute abdomen in a surgical casualty. Ultrasonography revealed intrauterine hyperechoic foci, suggestive of a chronic retained foreign body. CECT revealed tubo-ovarian abscess, peritonitis, and intestinal obstruction. This case highlights the impact of retained foetal bones on the potential health risk of women. Dilatation and curettage performed for hyperechoic foci in the uterine cavity revealed chronic retained intrauterine bony spicules which were later confirmed by histopathology.

Keywords: Retained bony spicules, Intestinal obstruction, Abortion

INTRODUCTION

Prolonged retained bony fragments are rare but known complication of abortion.¹ Any foetus that has attained 12 weeks of gestation is capable of endochondral ossification.²

The retained bony fragments are similar to the intrauterine contraceptive device by producing a local inflammatory reaction, increasing the prostaglandin secretions and preventing the implantation which causes secondary infertility.³ These retained bony spicules will become a ground for the colonization of bacteria causing the spread of the infection to the adnexa and affecting the functional integrity of the reproductive system.⁴

We encountered this rare case where the infection further spread and formed tubo ovarian abscess, peritonitis and presented as intestinal obstruction.

CASE REPORT

Patient information

An 18-year-old married woman had a history of abortion 1 year prior, with a period of 6 months amenorrhea in a private hospital.

Clinical presentation

The patient presented with complaints of abdominal distension, constipation, obstipation, abdominal pain, and vomiting for four days to general casualty. The patient had regular cycles with a negative urine pregnancy test result upon admission.

Diagnosis, assessment and treatment

USG suggested a right tubo-ovarian mass lesion with gross ascites and oedematous bowel loops with hyperechoic foci

in the uterine cavity which is suggestive of a chronic retained foreign body. The CECT findings were suggestive of intestinal obstruction. The patient was taken up for emergency laparotomy.

Intraoperative finding

One litre of pus was drained, and the whole abdomen was plastered with purulent material. Gentle hydro dissection was performed, and pus discharge from a ruptured right tubo-ovarian abscess of size 6×5 cm was evident. Right partial salpingectomy with ovariectomy was performed. The left tube and ovary were oedematous, and no evidence of uterine perforation was noted. Dilatation and curettage were performed under ultrasound guidance, and multiple tiny bony spicules were evacuated and sent for histopathology.

Some bony spicules were embedded within the endometrium which was removed by dilatation and curettage in the second sitting. Retrospective probing revealed a history of missed abortion at 6 months of amenorrhoea, for which piecemeal evacuation was performed in a private hospital. Subsequently, the patient was not followed up. Under ultrasound guidance, a second sitting of dilatation and curettage was performed, and the remaining bony spicules were removed. Hysteroscopy was performed and uterine cavity emptiness was confirmed.

Outcomes

Histopathological examination confirmed spicules of the bony tissue with surrounding inflammatory changes. Stillbirths, 6 babies required immediate respiratory support and three babies had respiratory distress subsequently.

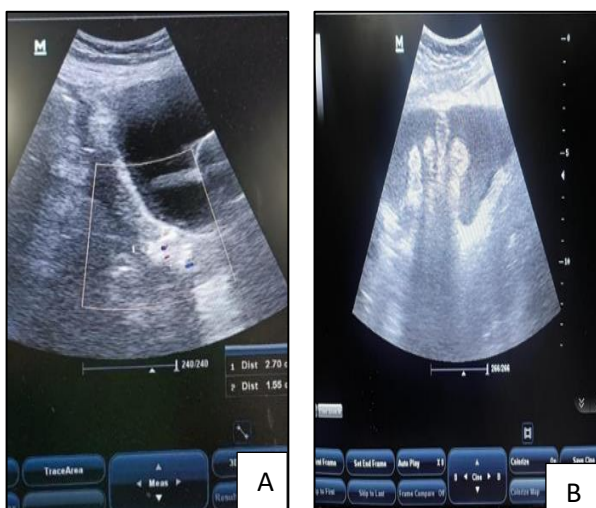


Figure 1 (A and B): Show the ultrasound images showing heteroechoic foci inside the uterine cavity and gross free fluid abdomen, respectively.

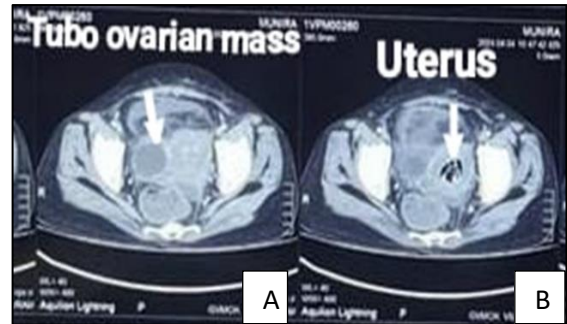


Figure 2 (A and B): CECT shows tubo ovarian abscess.

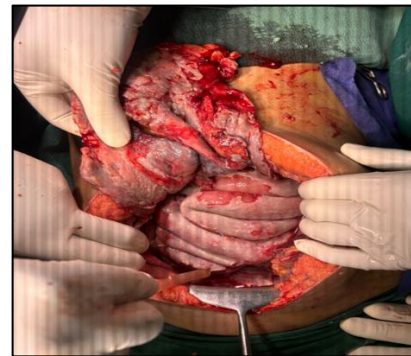


Figure 3: Bowel loops, omentum plastered with purulent material.

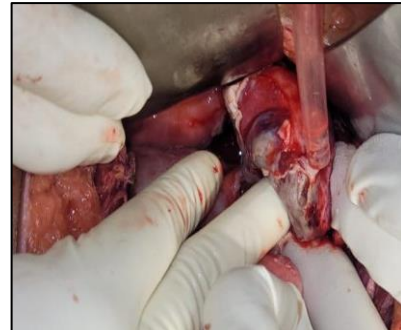


Figure 4: A tubo ovarian abscess.



Figure 5: An intraoperative picture of an intact uterus.

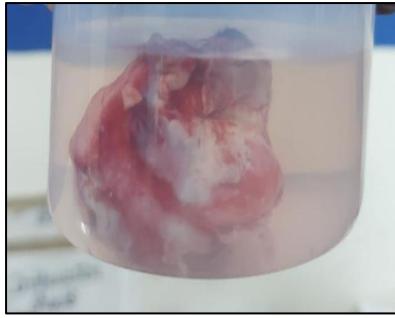


Figure 6: Right ovariectomy specimen send to histopathology examination.

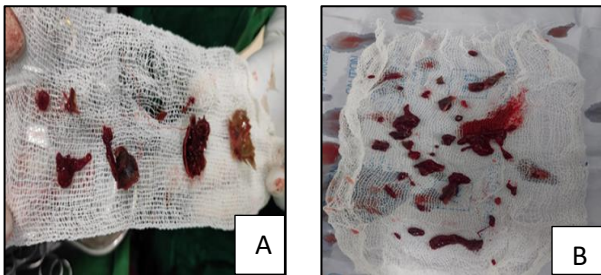
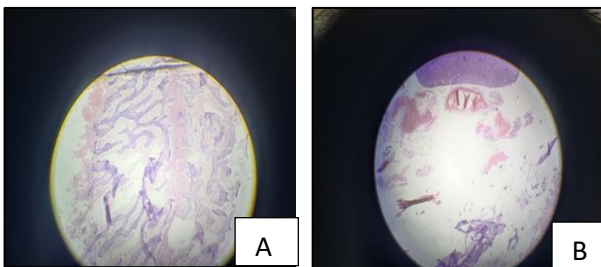


Figure 7 (A and B): The bony spicules removed from the uterus by dilatation and curettage.



Figure 8: USG post-operative normal uterus.



Figures 9 (A and B): The histopathological examination slide, showing fragments of degenerated bony spicules with inflammatory changes and the endometrium with bony spicules, respectively.

DISCUSSION

Although abortions have been legalised in India for more than five decades, unsafe abortions continue to be major contributors to maternal mortality and morbidity.⁵ Embedded retained bony fragments over time, and spontaneous expulsion of the retained products becomes less likely. Retained foetal bone is a rare complication of incomplete abortion. Most cases presented with secondary infertility due to the intrauterine foreign body effect of retained fragments, hindering endometrial implantation, which has been widely underestimated in the literature.⁶ Diagnosis is often made during the investigations of secondary infertility which accounts for 11.9% of the foreign body removed from the uterine cavity.⁷ The most common symptoms are menometrorrhagia, vaginal discharge, chronic pelvic pain, and secondary infertility. Most often, they are diagnosed by uterine curettage, as confirmed by histopathology.

In our case, transvaginal ultrasound showed calcified echogenic intrauterine shadows suggestive of a chronically retained foreign body which is foetal bones, as confirmed by dilatation, curettage, and histopathology. This is important, as deeply embedded bones are likely to be missed by hysteroscopy when performed alone.^{8,9} Retained fragments are a substrate for bacterial colonisation, spreading to tubes, appendages, ovaries, and the peritoneal cavity. In this case, the functional integrity of the reproductive system was disrupted.

CONCLUSION

This case creates awareness and insight for the younger generations regarding the impact of retained foetal fragments on the overall health and well-being of women, wherein intrauterine pathology cannot be underestimated as a prime suspect. Dilatation and curettage are old, safe, and cost-effective procedures for the diagnosis of such clinical dilemmas. Necessary care for meticulous evacuation without retained products and follow-up of the patient are necessary to ensure general well-being and better quality of life. Transvaginal ultrasound is the simplest and most prognostically valuable tool for initial diagnosis and for further interventions over hysteroscopy that can be used to ensure the completeness of evacuation.

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Ethical approval: Not required

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