

Secondary Infertility due to Retained Fetal Bones Diagnosed via Saline Sonography

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ABSTRACT

Prolonged intrauterine retention of any fetal bones can lead to secondary infertility. The exact incidence remains unclear. This case report describes a 36-year woman with secondary infertility of eight years. Workup revealed echogenic foci partially embedded in endometrium on saline sonography. After ultrasound guided dilation and curettage, fetal bones were retrieved. Unexplained infertility can often be explained if before applying this label, uterine factor is also taken into account. When common causes like tubal blockage, male factor, and ovulatory dysfunction have been excluded, infrequent causes like polyps, adhesions, and in rare instances foreign bodies also should be looked for.

Key Words: Retained fetal bones. Secondary infertility. Saline. Second trimester dilatation and evacuation. Saline infusion sonography.

INTRODUCTION

Intrauterine retention of fetal bones is a rare complication of a second trimester miscarriage. These patients present with pelvic pain, abnormal uterine bleeding, dysmenorrhea, dyspareunia and secondary infertility.¹ This report describes the first ever case to our knowledge, of retained fetal bones causing secondary infertility, in local literature, which was diagnosed on saline sonography.

CASE REPORT

A 36-year woman (P⁰ +¹) presented with secondary infertility. She was unable to conceive, for the last eight years despite regular unprotected intercourse. She had regular menstrual periods without significant dysmenorrhea or dyspareunia. During her initial assessment and workup, systemic review and past medical history were of little significance. Her only conception ended in a fetal demise at 20 weeks. Pregnancy was terminated by dilatation and evacuation (D&E) after failed induction and expulsion at some other hospital. Postoperative course was unremarkable. Subsequent menstrual cycle was normal.

No abnormality was found on general physical examination. Bimanual vaginal examination revealed a normal sized uterus with closed cervical os and normal adnexae. Semen analysis of her husband was normal and so were her serum LH, FSH, and prolactin. Her hysterosalpingogram (HSG) was normal. She had been

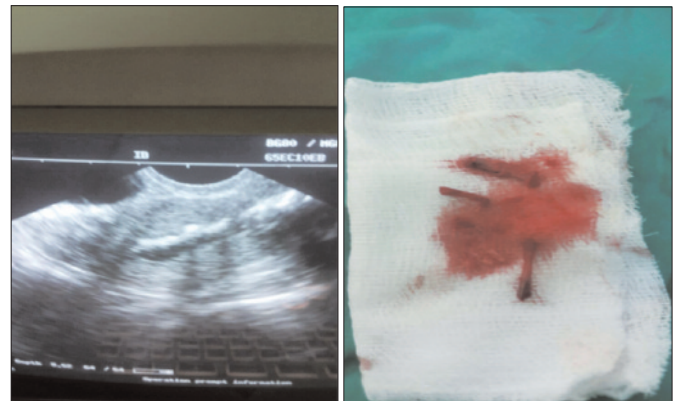


Figure 1: Highly echogenic endometrium against saline background.

Figure 2: Fetal bones retrieved..

to many doctors, her ultrasounds were done and she had received multiple courses of antibiotics and hormones. Transvaginal scan was performed which revealed a normal sized uterus with highly echogenic endometrium. Saline infusion sonography (SIS) was performed and highly echogenic areas were seen in anterior wall of uterus (Figure 1). Tubes were patent.

She was counselled and asked to come for dilation and curettage (D & C) under general anesthesia as facility of hysteroscopy was not available at our setup. D & C was performed under ultrasound guidance, uterine cavity had a gritty surface which was bony hard in places. Bonney's forceps were used to grasp hard structures protruding into the cavity, assisted with ultrasound, to make sure the forceps were within the uterine cavity. Initially fragments of calcified material were removed and then long slender structures were recovered, which were identified as fetal bones (Figure 2). Procedure was completed without any complication and no heavy bleeding was encountered. Patient was discharged on the same day. She was advised repeat SIS 15 days later to avoid Asherman's syndrome and to ensure that the cavity is patent; she was kept on high dose estrogen.

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DISCUSSION

Second trimester dilation and evacuation is not preferred by Royal College of Gynecologists and Obstetricians (RCOG); rather medical termination is the preferred choice.² D & E procedure at this gestation is likely to be complicated by a number of things, retained products of conception being one of them. This can be eliminated if the procedure is performed under ultrasound guidance.³

When suspecting retained fetal bones, then transvaginal ultrasound scan (TVS) should be ordered. Echogenic endometrium is the most likely finding in these cases. Differentials for echogenic endometrium include intrauterine contraceptive devices, foreign bodies, calcified submucous fibroids, Asherman syndrome or rare occurrences such as heterotopic bones.⁴

The scarce literature on these cases shows that removal of the retained fetal bones results in spontaneous resumption of fertility. In this case, the bones were so deeply embedded that removal was not straightforward and thus required ultrasound guidance. So this needs to be kept in mind that at times removal may be incomplete or not possible altogether.

In a fertility workup endometrium is mostly neglected as uterine factors are not accounted for according to the RCOG guidelines in an otherwise normal couple.⁵ HSG, which is used in uncomplicated cases to assess the tubes, is unlikely to diagnose retained bones. In comparison, SIS is inexpensive and can be of a great help in diagnosing abnormalities in uterine cavity as

calcified structures can be seen clearly against a saline background; whereas, in hysterosalpingography radio opaque dye tends to obscure such structures. Later, D & E of uterus along with high resolution ultrasound scan can solve this problem.

Evacuation in second trimester should ideally be supplemented with ultrasound scanning to ensure complete removal of retained products. If ultrasound is provided at a later date, repeat operation and instrumentation remain possible risks in case of retained products.

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