

Retained Foetal Bone as a Cause of Post-Abortal Failure to Conceive

M Odike, J Okonkwo, S Onuh, G Akaba, I Wada, V Onyiaorah, O Nmorsi, N Okwandu, S Okogbenin, J Eigbefoh

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Abstract

Infertility in females is a major social and gynecological problem in Nigeria. It is either primary or secondary. Amongst the many causes of secondary infertility are complications of a preceding pregnancy. We present the cases of two women who became infertile as a result of fetal bone retention during termination of pregnancy. They later achieved normal pregnancy with successful outcome after removal of the retained bone. We highlight the burden of unsafe abortion, and make a case for improved abortion laws and practices in the developing world.

INTRODUCTION

Most normal couples achieve a pregnancy within 12 months of trying to get pregnant. Failure to do so after one year may be defined arbitrarily as subfertility, which affects 10 – 15% of cohabiting couples.¹ This remains a major social and gynecological problem in our country. The prevalence of infertility in Nigeria is put at 20 – 25% among married couples.² It is generally classified into primary and secondary types and affects men and women. Male factors are responsible 40%, female factors 40% and male and female factors combined 20% of the times.² Most cases seen in Nigerian women are of a secondary form. Amongst the many recognized causes of secondary infertility are complications of a preceding pregnancy. This cause of infertility is rare. It is to draw attention to this that we present two cases resulting from post-abortal retention of foetal bone. These two later achieved normal pregnancy after removal of the retained foetal part.

CASE 1

Mrs OJ, a 30-year old Para O⁺¹ presented to the Fertility Clinic in Nisa Premier Hospital, Abuja on 08/08/03 with a 6-year history of infertility. Her previous pregnancy was terminated by dilatation and evacuation at 15 weeks in 1997 due to severe hypertensive disease in pregnancy.

Hysterosalpingogram in 2002 revealed bilaterally patent tubes and she used clomiphene citrate for 4 cycles before

presenting to the clinic. Her husband's seminal fluid analysis were within normal limits. Ultrasound scan revealed normal uterus with a hyper-echogenic shadow in the endometrial cavity. Hysteroscopy showed a bony piece of tissue measuring 10 x 6 mm and lying in the mid portion of the cavity. This was removed with hysteroscopic grasping forceps. Her hormonal assay parameters were within normal limits.

She was given a 2-month follow-up appointment but she defaulted. She later came on 19/01/04 with 16 weeks of amenorrhoea. Ultrasound scan confirmed a 16-week viable intra-uterine pregnancy. She had an uneventful antenatal care and a normal delivery of a live 3.65 kg male at 40 weeks gestation.

CASE 2

Twenty-six year old Mrs CO presented to the gynecological clinic of Nnamdi Azikiwe University Teaching Hospital, Nnewi with a 2-year history of inability to get pregnant. She was Para O⁺¹, having terminated a 14-week old pregnancy by dilatation and evacuation 2½ years earlier, as an unmarried lady. She had no noticeable complications. Her menstrual flow resumed about 3 months after the termination. Since then it had been a regular 28-day cycle, with 4 days of normal menstrual flow. She got married about 5 weeks after the termination and engaged in unprotected sex, without contraception 3 or 4 times weekly for the following 2 years.

Hysterosalpingogram showed bilaterally patent fallopian tubes. Her husband's semen profile was satisfactory. There were no other clinical problems.

Pelvic ultrasound scan revealed an echogenic linear object in the endometrial cavity. All other investigations showed normal results. Dilatation and curettage of the endometrium produced a small-sized bony material amongst other things, which were sent for histology. Macroscopy showed soft light-brownish tissue containing a grayish-white piece of bony tissue measuring about 1.5 x 0.5 x 0.2 cm. Microscopy of these showed presence of mild chronic endometritis together with a piece of immature (fetal) bone containing a combination of chondrocytes and osteoblasts. The bony component is minimally mineralized and consistent with early fetal period of development.

The patient remained amenorrhic 5 weeks after the curettage, which was confirmed to be pregnancy-induced. Pregnancy was carried to term, without events, and she had spontaneous vertex delivery of a normal 3.5kg male at 39 weeks.

DISCUSSION

The earliest recorded case of infertility in human history was probably in the Holy Bible³. Since then mankind has had to contend with infertility and childlessness. The commonest cause of childlessness is a failure to conceive. This failure can be absolute (infertility/sterility) or relative (subfertility – in which there is a lowered capacity to conceive). Either of these can be primary or secondary, and can affect the male or female partner of a marriage. The present cases are a secondary type of female infertility.

Causes of female infertility are numerous and include ovulatory failure, oocyte/embryo transport failure, implantation failure, coital errors, endometriosis and poor cervical mucus.² Some of these causes result from unsafe abortion. The diversity and multiplicity of possible etiologic factors in infertility emphasize the need for careful investigation to reveal them.⁴ Retained foetal bone following an abortion, as a cause of failure to conceive is a very rare event. These cases were a surprise to us because such cases were not in our local literature.

The mechanism of infertility caused by this iatrogenic

deposit is likely similar to that of intra-uterine contraceptive devices(IUCD). The mild endometrial inflammatory activity observed on histology may have produced endometrial changes that were not conducive for implantation. Increased tubal motility and inhibited sperm motility may be other relevant factors. It is amazing to observe that the bones did not cause any of the known complications associated with IUCDs (hemorrhage, pain, etc) despite featuring an excellent contraceptive effect.

Complications from unsafe abortions constitute large proportions of hospital admissions for gynecological services in 13 developing countries of the world including Nigeria, according to WHO⁵. This is made worse by the social stigma and the legal restrictions associated with abortion. In the developing world as a whole, an estimated 5 million women are admitted to hospitals for treatment of complications from induced abortions each year¹. The burden of unsafe abortion may never be fully appreciated. Many women have complications which they may never be aware of; and even when they know do not seek medical attention. The second case would have been missed if she did not get married and desire pregnancy. These seem to make a case for changes in abortion laws in many nations.

Some practitioners are of the opinion that not all couples who complain of infertility need to be investigated and treated. They suggest that when the period of infertility is short, and the couple is young a simple clinical assessment and reassurance is all that is needed¹. This opinion may be true for the developed world. We would rather encourage very high index of suspicion to practitioners in the developing nations, considering the high figures of unsafe abortions and associated complications. Thorough clinical evaluation may bring about early intervention and restoration of fertility in many cases.

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Author Information

M.A.C. Odike

Pathology, Ambrose Alli University

J.E.N Okonkwo

Obstetrics & Gynecology, Nnamdi Azikiwe University

S.O. Onuh

Nordica Fertility Center

G. Akaba

Nordica Fertility Center

I. Wada

Pathology, Nordica Fertility Center

V.I. Onyiaorah

Pathology, Nnamdi Azikiwe University

O.P.G. Nmorsi

Zoology, Ambrose Alli University

N.K.D. Okwandu

Pathology, Ambrose Alli University

S.A. Okogbenin

Obstetrics & Gynecology, Ambrose Alli University

J.O. Eigbefoh

Ambrose Alli University, Ekpoma