

## Successful Intrauterine Pregnancy following salpingostomy; Case Report

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### Abstract

**Background:** Ectopic pregnancy occurs more in young women who still desire children. Because of tubal rupture, salpingectomy which leads to tubal loss and reduced reproductive potentials is the commonest management option. This is a case report of a primipara who had ruptured left tubal ectopic pregnancy managed by salpingectomy and later had unruptured heterotopic pregnancy involving the contralateral tube and managed by salpingostomy, after which she had spontaneous abortion of the associated intrauterine pregnancy.

**Result:** Initial marital disharmony, followed by an uneventful intrauterine pregnancy carried to term with caesarean delivery of a live female baby.

**Conclusion:** In well-selected cases, conservative tubal surgeries should be encouraged in preference to radical surgeries in the management of unruptured tubal pregnancies.

**Key words:** ectopic pregnancy, heterotopic pregnancy, conservative surgery

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### Introduction

Ectopic pregnancy borders the clinician due to its contribution to maternal mortality and morbidity, and fetal wastage in the first trimester of pregnancy<sup>1, 2</sup>. The fallopian tubes are involved in about 95% of cases<sup>1</sup>. Tubal pregnancy results from delay in the passage of fertilized ovum down the tube due to damage to the ciliated epithelium and peristaltic activity of the tube engendered by infections and other procedures<sup>1, 3</sup>. The incidence of ectopic pregnancy varies for different countries and different health institutions.

Salpingectomy is the commonest surgical management for tubal pregnancy in Nigeria because most of the women present late, with tubal rupture<sup>4, 5</sup>. The intrauterine pregnancy rate after salpingectomy is about 45% with a 9% repeat ectopic pregnancy rate<sup>1</sup>. Based on this and the high twin proneness in Nigeria<sup>6</sup>, spontaneous

heterotopic pregnancy which may involve the contralateral tube can occur after salpingectomy for ectopic pregnancy. Pregnancies following previous ectopic pregnancy must be thoroughly assessed early to exclude repeat ectopic pregnancy or heterotopic pregnancy, or confirm normal intrauterine pregnancy. Ultrasound scan is an invaluable diagnostic tool in this respect<sup>7, 8</sup>.

In a woman desirous of more children, involvement of the contralateral tube in recurrent ectopic pregnancy after a previous salpingectomy, poses management dilemma. This is a case report of a woman who had ruptured ectopic pregnancy managed by salpingectomy. Years later, she had heterotopic pregnancy involving the remaining tube and was managed by salpingostomy. She subsequently had an unassisted intrauterine pregnancy.

### Case Report

Miss PA, a 36-year old para 1<sup>+4</sup> civil servant, whose last menstrual period was on 5/11/2005, presented at the clinic on 7/2/2006 with the complaint of failure to menstruate for three months. Prior to presentation, she enjoyed a regular 28-day menstrual cycle with four days of flow. She was divorced.

Prior to marriage, she had two uneventful induced abortions. In 1994, she had an uneventful term pregnancy and vaginal delivery of a male child who was alive and well. In 1996, she had a ruptured right tubal pregnancy managed by salpingectomy. Her postoperative recovery was smooth. She was counselled on the possibility of recurrence and advised to present early whenever she missed her period. Two years later, she had heterotopic pregnancy involving the left tube. Diagnosis was confirmed by ultrasound scan at eight weeks gestation and salpingostomy was performed with smooth postoperative recovery. Four weeks post-surgery, she had spontaneous abortion. Subsequently, she was unable to conceive. This led to a divorce in 2001, after eight years of marriage. Two years later, Miss PA started a new relationship and had

unprotected sex. About 24 months into the relationship, she missed her period. Clinical and ultrasound examination confirmed the presence of a normal intrauterine pregnancy. She had an uneventful antenatal period. On 21/7/2006, she had an elective caesarean delivery of a female baby who weighed 3.6 kg and was alive and well. Her puerperium was uneventful. She was counseled on the need for contraception and reminded that she could have normal or ectopic pregnancy and should present early for confirmation and localization if she got pregnant. At follow-up, both mother and her baby were normal.

## Discussion

Ectopic pregnancy is a major health problem amongst women of childbearing age in our community<sup>2</sup>. These ectopics occur in patients still desirous of children<sup>2</sup>. The predisposing factors are previous induced abortion(s) as in our patient, previous pelvic inflammatory disease or other conditions that alter tubal anatomy and physiology<sup>1,3</sup>. In Nigeria, most cases of ectopic pregnancy present with tubal rupture; therefore salpingectomy is the commonest management<sup>4,5</sup>.

Fertility rates reduce following previous ectopic pregnancy<sup>1,4</sup>. About 45% of patients who had radical surgery will be able to have intrauterine pregnancy, while some 9% will have repeat ectopic pregnancy<sup>1</sup>. Prior tubal disease and history of infertility reduce the chances of intrauterine pregnancy and increase that of recurrent ectopic<sup>1</sup>. There is also a potential risk of achieving heterotopic pregnancy<sup>9</sup>; a risk that may increase with use of fertility enhancing drugs. Our patient had spontaneous heterotopic pregnancy involving her left tube. Due to increased awareness resulting from her previous ectopic pregnancy, she presented early and diagnosis was confirmed prior to tubal rupture by pelvic ultrasound scan, an invaluable tool in this condition<sup>7,8</sup>.

The management of recurrent ectopic pregnancy affecting the contralateral tube after a previous salpingectomy poses some dilemma to the surgeon. Conservative surgical techniques and medical management leave the patient with hope for potential future fertility<sup>1,3, and 4,9,10</sup> and are to be preferred to radical surgery if the tube is intact. Medical management with the use of methotrexate was unsuitable in this patient

because of the co-existent intrauterine pregnancy. Salpingostomy was done, despite our limited facilities for and experience with the procedure<sup>4</sup>. Tissue handling was minimized to reduce tissue trauma and prevent tubal reocclusion or peritubal adhesions<sup>10</sup>. Haemostasis was achieved by local application of very dilute adrenaline solution, because magnification, which permits accurate excision and haemostasis<sup>10</sup>, was not available. Sadly, our patient miscarried four weeks after surgery. The pregnancy wastage may be due to the fact that heterotopic pregnancies are more likely to result in spontaneous abortions than intrauterine-only pregnancies<sup>11</sup>.

Patients who undergo salpingotomy or salpingostomy for an ectopic pregnancy located in their only fallopian tube have a live birth rate of about 40% and a repeat ectopic pregnancy rate of about 20%<sup>1</sup>. Though the success of reconstructive tubal surgery for ectopic pregnancy can only be measured in terms of subsequent live births the individual achieves<sup>10</sup>. Many women like our patient, for unknown reasons, fail to conceive even after successful reconstructive tubal surgery<sup>10</sup>. Assisted reproduction may have offered hope, but was rejected by the couple for financial and religious reasons. The high premium on children in Nigeria made her family to disintegrate<sup>4</sup>. However, she soon had another male partner, unprotected sex and then, amenorrhoea. Intrauterine pregnancy was confirmed and she had elective caesarean delivery of a live female baby at term.

Ectopic pregnancy poses health and social challenges to women. Previous induced abortions are important aetiologically. As pregnancies following previous ectopics have increased risk of repeat ectopics, patients must be well counselled and clinicians on alert. These lead to early presentation, diagnosis and management before rupture. For unruptured ectopic pregnancy, conservative operation is feasible, safe, does not appear to further impair tubal function and is logical if the woman still desires fertility, as intrauterine pregnancy is more likely to occur after tubal conservation than recurrent ectopic<sup>10</sup>. Case selection is, however, very important to avoid offering conservative surgery to patients less likely to seek proper medical care in future pregnancies only to die unnoticed, following repeat ectopic pregnancies.

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