LETTER TO EDITOR

Tubal Ectopic Pregnancy after Bilateral Tubal Ligation: A Case Report

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ABSTRACT

Background: *Tubal ligation is a common method of contraception, and pregnancy after this method of sterilization is uncommon. We here present a report of Tubal pregnancy after a Bilateral Tubal Ligation (BTL).*

Method: *The case notes of a 35year Nigerian female who presented with a tubal pregnancy after BTL and a review of literature on the subject was used.*

Result: *A 35-year-old para $4^{=0}$ had bilateral tubal ligation during caesarean section for her last childbirth. She presented 3 years later with a six weeks history of irregular vaginal bleeding and lower abdominal pain and had a laparotomy for a right tubal ectopic pregnancy.*

Conclusion: *Ectopic pregnancy after bilateral tubal ligation is uncommon. Females who undergo BTL should be adequately counseled on the possibility of failure of this procedure for contraception.*

KEYWORDS: Bilateral tubal ligation, ectopic pregnancy.

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INTRODUCTION

Tubal ligation is a common method of contraception, and pregnancy after this method of sterilization is uncommon[1] Conception after previous tubal ligation increases a woman's risk of developing ectopic pregnancy[2,3].

CASE REPORT

A 35-year-old woman with a parity of $4^{=0}$ presented with a 3-day history of lower abdominal pain of increasing intensity. Her last normal menstraual period was 6 week earlier and before then she had regular cycles. There was no vaginal bleeding but she had been treated 3 weeks earlier for acute on chronic pelvic inflammatory disease.

She had 4 previous caesarean sections and all children were living. The last childbirth was 3 years earlier, following which a bilateral tubal ligation was done using the pomeroy technique.

She was pale on physical examination with a temperature of 37.2^{0}C. Pulse rate was 96 per minute, of moderate volume and blood pressure was 100/70mmHg. Respiratory rate was 15 cycles per minute and chest examination was normal. The abdomen was uniformly full; there was a midline subumbilical scar and no visible mass. There was tenderness in the surprapubic region and both iliac fossae. Shifting dullness was demonstrable and bowel sounds were normal. Pelvic examination showed a normal vulva and vagina; the cervix was anterior, tubular and soft, with marked cervical excitation tenderness. The uterus was difficult to delineate due to tenderness and the pouch of Douglas was full.

Pelvic ultrasonography showed a normal sized uterus with an empty cavity. There was a complex mass in the right adnexium measuring 4.3cm, with significant fluid surrounding it and extending to the pouch of Douglas.

The left adnexium was normal. Haemogram was 10gm/dl and urine pregnancy test was positive. A diagnosis of ruptured ectopic pregnancy was suspected.

She subsequently had an emergency laparotomy after which she had two units of blood transfusion on account of severe anaemia as autologous transfusion was not possible as peritoneal blood was already denatured. Intraoperative findings were haempoeritonum of 1.5 liters, and adhesions between the omentum, anterior abdominal wall and the right ovary. The left ovary was normal. The proximal and distal stumps of the left fallopian tubes were normal and measured 3cm and 4cm respectively. There was a ruptured right ectopic gestation involving the distal stump of the right fallopian tube, the broad ligament and right ovary. The ectopic pregnancy and right ovary were exercised and the proximal stumps of both fallopian tubes were ligated close to the uterine cornua. Post-operative course was uneventful. She was discharged on the 8^{th} Post-operative day. Histology of the excised mass confirmed an ectopic pregnancy.

DISCUSSION

Ectopic pregnancy refers to implantation of the fertilized ovum in any tissue other than the endometrium[4]. Although pregnancy after sterilization is uncommon, it can occur and may be ectopic [5]. The risk of ectopic pregnancy within 10 years of sterilization was 7.3 per 1000 procedures in one series [6].

Ectopic pregnancy can occur two or more years after sterilization [6,7]. With the first year failure rate of 0.1-

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0.8% [6]. Our patient had sterilization 3 years prior to presentation. The failure rate of the common technique used (pomeroy technique) [8] either by mini-laparotomy or laparoscopy is 0-0.4% [9]. Failure is attributable to formation of a tuboperitoneal fistula and in this category, the pregnancy is outside the fallopian tube and not in the lateral (distal) tubal segment [10,11]. In the present report, the ectopic pregnancy was in the distal stump of tube. The other way ectopic pregnancy can occur is when there is recanalization of tube, which becomes too narrow to transmit a fertilized ovum [12]. There was no evidence of re-canalization in this patient. The mechanism that was responsible for ectopic pregnancy in our patient is not clear but an external migration of sperm in the theory of development of ectopic gestation is suggested [11].

The approach to treatment of tubal ectopic pregnancy may be surgical or medical [12]. The patient in this report had surgical treatment because she had a ruptured ectopic gestation [12]. A reinforcement of the proximal tubal stumps bilaterally is necessary to reduce the chances of a repeat ectopic pregnancy [13,14].

CONCLUSION

Though a tubal ectopic pregnancy after a BTL is uncommon, patients need to be adequately counseled on the possibility of failure and advised to report early if pregnancy is suspected.

REFERENCES

1. Fasuba DB, Ezechi CO, Isawumi IA, *et al*. An 11-year Review of failed sterilization in Ile-Ife, Nigeria. Tropical Journal of Obstetrics and Gynaecology 2001; 18: 8-11.
2. Wittich AC. Primary ovarian pregnancy after postpartum bilateral tubal ligation: A case report. J Reprod Med 2004; 49: 759-761.
3. Tulandi T. Tubal sterilization. N Engl J Med 1997; 336: 796-797.
4. Sepilian V, Woods E. Ectopic pregnancy. Http://www.e-medicine.com/med/topic 3212.htm
5. Berker B, Kabukcu C, Dokmeci F. Tubal pregnancy after pomeroy sterilization. Arch Gynecol Obstet 2002; 266: 56-57.
6. Paterson HB, Xia Z. Hughes JM, Wilcox VS, Tylor LR, Trussell J. The risk of ectopic pregnancy after tubal sterilization. N Engl J Med 1997; 336: 762-767.
7. Neeser E, Hirsch HA. Tubal pregnancy following tubal sterilization (English abstract). Gebburtshilfe Frauehilkd 1985; 45: 701-705.
8. Adetoro OO. Female surgical contraception at the University of Ilorin Teaching Hospital, Nigeria. Tropical Journal of Obstetrics and Gynaecology (special edition) 1990; 2:29-13.
9. Dahiya K. Khosla AH. Ectopic pregnancy after sterilization. Trop Doctor 2004; 34: 255.
10. Kovavisarach E, Jaravechson S. Intra- and extra-uterine pregnancies following repeated sterilization in a case of HIV seropositive patient (abstract). J Med Assoc Thai 1999; 82: 1265 1267.
11. Kansaria JJ, Pilankar A, Gupta A, Parulekar SV. An unusual case of post tubal ligation ectopic pregnancy. http://bhj.org/journal/2001 4304 oct/case 584.htm
12. Abiodun PA. The Diagnosis and treatment of tubal ectopic pregnancy. Africa Health 1999; 21 (6): 4-6.
13. Robinson RE. Salpingectomy, salpingo-oophorectomy and ectopic pregnancy. In: Roberts DWT (Ed). Operative surgery: fundamental international techniques. Gynecology and Obstetrics. London, Butterworth's 1977: 130-134.
14. Brenner PF, Benedetti T, Mishell DR Jnr. Ectopic pregnancy following tubal sterilization surgery. Obstet Gynecol 1977; 49: 323-324.