A case report of pelvic infection as a major risk factor for ectopic gestation

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Abstract

Introduction

Nigeria has one of the highest maternal mortality rates in the world and ruptured ectopic is a significant cause of morbidity and mortality in pregnant women in their first trimester in Nigeria. This case report is to bring to the fore the importance of pelvic infection as a major cause of ectopic gestation in our environment as well as review other risk factors to help our women recognise and avoid them as well as the dangerous sequelae.

Methodology/ Result (Case report)

This is a report of a 35 year old nullipara with 2 previous terminations of pregnancy via dilatation and curettage and previous history of pelvic inflammatory disease who presented with 8 weeks history of amenorrhoea and 5 days history of abdominal pain. She was diagnosed with right tubal gestation at 8 weeks for which she had right salpingectomy without sequelae. The loss of a fallopian tube reduced her chances of subsequently becoming pregnant and carrying the pregnancy to term.

Conclusion

The case highlights the importance of preventing and avoiding possible causes of pelvic infection including induced abortion to minimise the incidence of ruptured ectopic thus reducing maternal morbidity and mortality and infertility both of which remain high in our society.

Keywords: Ectopic gestation, Rupture ectopic pregnancy, Pelvic infection, Nigerian nullipara

Introduction

Ruptured ectopic pregnancy is a major cause of maternal morbidity and mortality in Nigeria. It is a gynaecological emergency and a leading cause of pregnancy related death in the first trimester.[1] Ectopic pregnancy commonly re occurs in subsequent pregnancies with an incidence of 15-30% following the first and second ectopic pregnancies respectively [2] and impairment of fertility.[1]

Ninety five per cent of ectopic pregnancies occur in the fallopian tube.[3] Tubal pregnancy is due to alteration in the tubes such as scaring or tearing. A number of risk factors have been shown to be associated with ectopic gestation. These include: pelvic infection, multiple sexual partners, previous miscarriage or abortion, previous ectopic, tubal surgery, caesarean section, and increased maternal age (higher in women over 40 years).[3,4]

Methodology/Results (Case History)

A 35 year old single Gravida 3 Para 0^{+2} lady presented with abdominal pain of five days duration after being amenorrhoeic for eight weeks. She had associated dizziness and syncopal attacks and was not bleeding per vaginum. She had two previous terminations of pregnancies via dilatation and curettage four and three years prior to presentation at five and six weeks gestational age respectively. She developed severe abdominal pain after the second episode for which she was hospitalised and treated with intravenous antibiotics. She was diagnosed and treated for chronic pelvic inflammatory disease a year prior to presentation following complaint of lower abdominal pain and vaginal discharge. All the pregnancies were for her fiancé and the index pregnancy was desired as they intended to get married soon.

Examination revealed an anxious young lady with significant pallor. The pulse was 118bpm, regular, with small volume; Blood Pressure was 90/50mmHg. The abdomen was full and tender especially at the right iliac and suprapubic regions. Vaginal examination revealed a normal lower genital tract. Uterus was normal sized and anteverted. There was marked cervical excitation tenderness and right adnexal tenderness.

An assessment of haemoperitoneum secondary to ruptured ectopic gestation was made. Differential diagnoses were those of ruptured ovarian cyst and ruptured appendix.

Pregnancy test done was positive and urgent packed cell volume done was 18%.

The patient was resuscitated with intravenous fluid (0.9% saline). Blood was sent for grouping and cross match and urethral catheter was passed. Electrolytes, Urea and Creatinine done were within normal limits. Bedside ultrasound scan revealed haemoperitoneum with right ectopic gestation.

The likely diagnosis was explained to the patient and informed written consent obtained.

Exploratory laparotomy was done under general anaesthesia with Ketamine. Intra operative findings were 2 litres of Haemoperitoneum, normal sized uterus, normal ovaries and left tube and a right ectopic gestation at the ampullary part of the right tube. Right salpingectomy was done and haemostasis secured. Patient was auto transfused with 1 litre of blood intra operatively and had another two units post operatively. Post-operative condition was satisfactory and recovery was uneventful. She was placed on intravenous ciprofloxacin 500mg 12 hourly, intravenous metronidazole 500mg 8 hourly and intravenous pentazocine 30mg 6hourly, all for forty eight hours after which she was placed on oral ciprofloxacin, metronidazole and paracetamol for another five days.

She was discharged after one week. On follow up visit two weeks later, patient was found to be stable. She was counselled on the fact that she had only one functional tube and should therefore practice safe sex and present to the hospital as soon as she was pregnant as ectopic

gestation is a risk factor for repeat ectopic.She was also counselled on contraceptive use. She was also advised to look out for the following signs and report immediately to the hospital if present: prolonged cramping, prolonged bleeding, severe or increased menstrual pain, fever, chills or fainting.

Discussion

This patient had two terminations of pregnancies, the second of which was complicated by sepsis. She also had chronic pelvic infection which may have been from the last termination of pregnancy. These factors may have contributed to the development of ectopic gestation in this patient as both are established risk factors for the development of ectopic pregnancy [3-5,7] with pelvic inflammatory disease regarded as the most important aetiological factor.[7] Other risk factors for ectopic gestation are; history of previous ectopic gestation, tubal surgeries, tubal sterilization, tubal infertility, use of intra uterine contraceptive devices, progesterone only pills and assisted reproductive techniques.[6,7] They cause ectopic gestation by damaging the tubes through scarring and loss of ciliated cells which decreases ovum transport efficiency leading to tubal, rather than uterine, implantation of the embryo after trophoblast formation. Marked degree of deciliation was seen in biopsies of patients with ectopic gestations.[7] Major risk factors such as multiple sex partners, previous sexually transmitted infections and abortions precede the ectopic in a cause-effect relationship. The predominant risk factors of multiple sex partners (35.5%) and previous abortion (32.9%) are suggestive of tubal damage as a final common pathway which was consistent with the findings in studies done in Enugu and Sokoto.[8,9] The two previous abortions as well as previous pelvic infection in Miss MA were likely risk factors that contributed to her problem.

The incidence of ectopic gestation in Nigeria and other developing countries have been on the rise ranging from 1.2 – 2.7%.[7] This rise has been mainly attributed to increase in the prevalence of chronic pelvic infections from unsafe abortions, sexual transmitted diseases, puerperal and post abortal sepsis.[7]

The situation is particularly worrisome as most cases are diagnosed late either due to late presentation or misdiagnosis. Thus, treatment of ectopic gestation in our environment is mainly salpingectomy as over 90% rupture as opposed to laparoscopic salpingotomy and systemic methotrexate as used in developed countries.[10,11] These methods conserve the tubes and are being practiced in developed countries where diagnosis is made early prior to rupture. Salpingectomy reduces the patient's chances of fertility. This is made worse if the contralateral tube is damaged.[7]

It is therefore important that cliniciansshould have a high index of suspicion for this life threatening condition. A history of amenorrhoea and lower abdominal pain in a woman of reproductive age should rouse our suspicion of ectopic until proven otherwise.

Patients and the general public, particularly young girls and women of child bearing age should be counselled on the risk factors of ectopic pregnancy particularly pelvic infections and unsafe abortions and how to prevent them as primary prevention remains the best level of care. This will reduce the rising rate of infertility and other complications of ectopic gestation as well as reduce the embarrassingly high maternal morbidity and mortality we presently have in Nigeria.

Conclusion

Ectopic pregnancy is a major cause of morbidity and mortality among women of child bearing age. Pelvic infection is a major aetiological factor for ectopic gestation. Reducing pelvic infection through avoidance of harmful practices such as unsafe abortion, unprotected sex with high risk partners, engaging in sex only with legally married spouse are key to prevention of ectopic gestation and its attending sequelae.

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Conflict of interest: Nil