PACIFIC JOURNAL OF MEDICAL SCIENCES

{Formerly: Medical Sciences Bulletin}

ISSN: 2072 – 1625

Pac. J. Med. Sci. (PJMS)

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CASE REPORT

SPONTANEOUS HETEROTOPIC PREGNANCY WITH TUBAL RUPTURE IN A TEENAGER: A CASE REPORT AND LITERATURE REVIEW

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ABSTRACT:
Heterotopic pregnancy is the simultaneous occurrence of intrauterine and ectopic pregnancies. It is rare in spontaneous pregnancies, occurring only in 1 per 30,000. It is a life-threatening condition with diagnostic and therapeutic difficulties. We report a case of a 16 year old with a previous unsafe abortion with a diagnosis of a ruptured ectopic pregnancy. Meticulous Ultra sound assessment resulted in the diagnosis of Heterotopic pregnancy. She had laparatomy and manual vacuum aspiration. Spontaneous heterotopic pregnancy is a life threatening condition especially in poor resource setting like ours with paucity of diagnostic equipment. Clinicians should have a high index of suspicion for heterotopic pregnancy when evaluating young teenage girls with complaints of abdominal pain and amenorrhea. In addition, tackling the unmet need for contraception in our environment, especially emergency contraception will ameliorate the morbidity and mortality associated with this rare condition.

Key Words: Heterotopic Pregnancy, Spontaneous, Teenager, Ultrasound
Submitted: July 2015; Accepted: August 2015

INTRODUCTION:

Heterotopic pregnancy is the simultaneous occurrence of ectopic and intra-uterine gestations [1]. It was first reported in 1708 as an autopsy finding [1]. It is a rare condition occurring in 1 per 30,000 naturally occurring pregnancies, but with an incidence of about 1% in pregnancies following in vitro fertilization IVF [1]. The risk factors include previous tubal surgeries, endometriosis, previous ectopic pregnancy, assisted reproduction technology, previous pelvic inflammatory disease and pelvic adhesions. Moreover, the presence of at least one risk factor for ectopic pregnancy in 71% of women with heterotopic pregnancy had been reported [2].

The treatment options are; surgery, medical treatment and expectant treatment, with the

aim of preserving the intrauterine pregnancy. Methotrexate is usually avoided so as not to compromise the viable intrauterine pregnancy. The use of potassium chloride or hyperosmolar injection, directly injected into the ectopic gestational sac had been reported [3].

The survival rate of intrauterine gestations in heterotopic pregnancies is estimated to be between 66–68%. Moreover, heterotopic intrauterine gestations were 30% less likely to result in live birth than intrauterine pregnancies [3, 4].

The major factor associated with the high maternal morbidity and mortality seen in Heterotopic pregnancy (HP) is delay in diagnosis; because the symptoms of ectopic gestation can be attributed to complications of intrauterine pregnancies especially in asymptomatic patients which may lead to tubal rupture, and it's complications like haemoraghic shock and the requirement for blood transfusions. These complications can also complicate the intra uterine pregnancy component [5]. Transvaginal sonography (TVS) is the imaging modality of choice for the diagnosis of heterotopic pregnancy. The early diagnosis of heterotopic pregnancy by Transvaginal sonography in asymptomatic patients is potentially lifesaving, and enables conservative management options to be considered [5]. We present the case of a 16 year old nullipara with heterotopic pregnancy that was managed with laparatomy, manual vacuum aspiration and blood transfusion.

CASE PRESENTATION:

A 16 year old unmarried nullipara who presented at the emergency unit of our hospital with complains of abdominal pain and swelling of one day duration. Patient had two episodes of fainting attacks prior to presentation, but there was no history of vaginal bleeding, vaginal discharge or urinary symptoms. She was 9 weeks pregnant, from her last menstrual period. It was a spontaneous conception and there was no past history of pelvic inflammatory disease or abdominal surgery. She had an unsafe abortion about a year prior to presentation which was complicated by sepsis. On examination, she was conscious but in obvious painful distress, dehydrated and pale. Her respiratory rate was 22 cycles per minute, pulse rate was 110/min while her blood pressure was 90/60 mmhg. The abdomen was distended, tense and tender making organ palpation difficult. There was a positive fluid thrill. Bowel sounds were normal. Pelvic examination could not be carried out due to the tenderness. She was resuscitated with intravenous fluids and investigated. Trans vaginal ultrasound scan revealed haemoperitonium, a nine week non viable intra uterine pregnancy and an ectopic gestational

sac surrounded by omentum (figure 1). Park cell volume was 19%, WBC and platelet counts were within normal limits. Pregnancy test with Urine was positive. A diagnosis of heterotopic pregnancy with tubal rupture was made. An informed consent was obtained from patient's guardian for an emergency laparotomy. Findings were a ruptured right Ampullary ectopic gestation with hemoperitoneum of about 2 liters and eight (8) weeks sized uterus. Partial salphingectomy, peritoneal lavage and a manual vacuum aspiration of the uterine contents were done. She was transfused with 2 units of blood intra-operatively and additional one unit after surgery. Her postoperative period was uneventful. She was discharged home on the 5th post operative day after she was properly counselled on contraception.

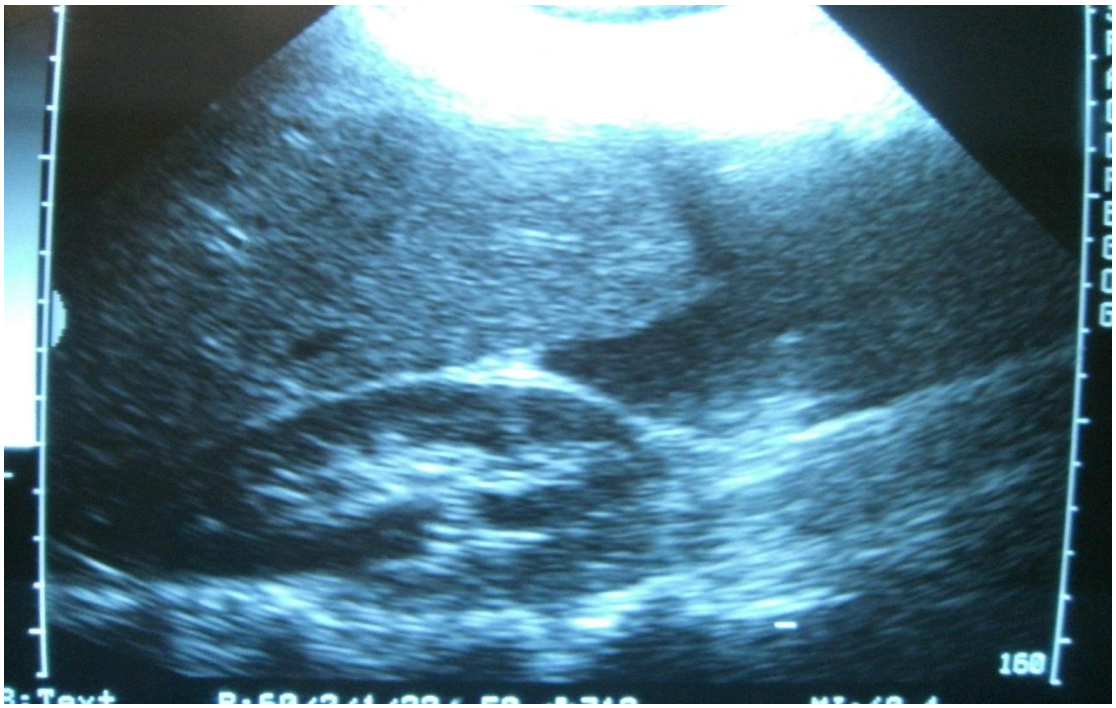

Figure 1: Transvaginal sonography (TVS) showing a non viable intra uterine pregnancy and a rupture ectopic with heamoperitoneum.

DISCUSSION:

Heterotopic pregnancies are thought to be on the increase due to the rising incidence of ectopic pregnancies [1, 6]. The history of a previous unsafe abortion predisposed the patient to having an ectopic pregnancy although there have been reports of spontaneous heterotopic pregnancies occurring in women with no risk factors [2, 7]. Early diagnosis is often Problematic, due to the lack of clearly defined signs and symptoms. Abdominal pain, adnexal mass, peritoneal

irritation and an enlarged uterus were defined as signs and symptoms suspicious of Heterotopic pregnancy [1]. Furthermore, visualization of heart activity in both intrauterine and extrauterine gestation confirms the diagnosis,[1, 5, 6]. Thus, thorough pelvic ultrasonography (USG) in these patients is important, as was done in this case. It is however pertinent to note that the advent of ultrasound (USG) may not have changed the diagnostic ability of Heterotopic over a period of time, this is because it is a rare condition and most patients with Heterotopic pregnancy often present with symptoms of a rupture ectopic component. Thus, a preoperative diagnosis of HP is still a dilemma [1, 8].

The presentation of this patient is in keeping with the pattern of presentation of ectopic pregnancies in Nigeria, which is usually as acute emergencies [9]. It is pertinent to note that heterotopic pregnancies have had successful term deliveries of the intra-uterine component after laparatomy with a success rates of between 66% and 69% reported by previous workers [1, 3]. This may be connected to the improvement in early diagnosis and treatment and close follow- up of patients after in vitro fertilization.

CONCLUSION:

This patient fits the profile of women in the Niger Delta who lack access to contraception and other reproductive health services. Despite an increase in the incidence of ectopic pregnancy in the developed world, early diagnosis facilitated by Ultra sound scan has led to a reduction in morbidity and mortality that is associated with heterotopic pregnancy, hence physicians should exclude heterotopic pregnancy in all women of reproductive age, even in the presence of an intrauterine pregnancy the dictum 'think ectopic' must not be forgotten.

We declared that no competing interests exist.

REFERENCES:

1. Rimpy Tandon, Poonam Goel, Pradip Kumar Saha and Lajya Devi. Spontaneous heterotopic pregnancy with tubal rupture:a case report and review of the literature. Journal of Medical Case Reports.2009, 3:8153 doi: 10.4076/1752-1947-3-8153.
2. Talbot, K., Simpson, R., Price, N., Jackson, S.R. Heterotopic pregnancy. J. Obstet. Gynecol. 2011; 31, 7–12.
3. Tal Shavit, Einat Paz-Shalom, Eylon Lachman, Ofer Fainaru and Adrian Ellenbogen. Unusual case of recurrent heterotopic pregnancy after bilateral salpingectomy and literature review. Reproductive Biomedicine Online 2013;26:59–61 http://dx.doi.org/10.1016/j.rbmo.2012
4. Clayton, H., Schieve, L., Peterson, H., Jameison, D., Reynolds, M., Wright, V. A comparison of heterotopic and intrauterine only pregnancy outcomes

after assisted reproductive technologies in the United States from 1999 to 2002. Fertil. Steril. 2007; 87: 303–309.

5. X. H. Li, Y. Ouyang and G. X. Lu .Value of transvaginal sonography in diagnosing heterotopic pregnancy after in-vitro fertilization with embryo transfer. Ultrasound Obstet Gynecol 2013; 41: 563–569
6. Michał M, Marian M, Marek M, Ewa WO. Heterotopic pregnancy in the absence of risk factors--diagnostics difficulties Ginekol Pol. 2011 Nov; 82(11):866-8.
7. Dassah E.T Odoi AT, Darkey DE, Senaya CM, Djokoto RM Spontaneous heterotopic pregnancy with live infant: report of two cases East Afr Med J. 2008 Dec;85(12):612-5
8. U. A. Menakaya and F. O. Agoreyo Unusual presentation of spontaneous heterotopic pregnancy: A case report International Journal of Biomedical and Health Sciences June 30, 2008; 4 (2)
9. Odewale MA, Afolabi MO. Heterotopic pregnancy: a clinical case report from rural Nigeria Rural and Remote Health 8: 979. (Online) 2008. Available: http://www.rrh.org.au