Bilaternal Cornual Ectopic Pregnancy

Corresponding Author:
Dr. Sachithanantham Shyamalan,
Senior Registrar, Colombo South University Teaching Hospital - Sri Lanka

Submitting Author:
Mr. Mohamed Najimudeen,
Associate Professor, Obstetrics and Gynaecology, Melaka Manipal Medical College, 75150 - Malaysia

Article ID: WMC002879
Article Type: Case Report
Submitted on: 06-Jan-2013, 05:24:49 AM GMT   Published on: 07-Jan-2013, 10:41:28 PM GMT
Article URL: http://www.webmedcentral.com/article_view/2879
Subject Categories: OBSTETRICS AND GYNAECOLOGY
Keywords: Ectopic Pregnancy

How to cite the article: Shyamalan S, Najimudeen M. Bilateral Cornual Ectopic Pregnancy. WebmedCentral OBSTETRICS AND GYNAECOLOGY 2013;4(1):WMC002879

Copyright: This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC-BY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Source(s) of Funding:

Consent: Written informed consent was obtained from the patient for publication of this manuscript and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal

Conflict Interests: There is no conflict interest in this case presentation

Competing Interests:
No competing interests
Bilaternal Cornual Ectopic Pregnancy

Author(s): Shyamalan S, Najimudeen M

Case Report(s)

A 28 year old gravida 2 para1 was presented at the period of gestation of 8 weeks and 2 days of pregnancy with lower abdominal pain of one day duration. She had no vaginal bleeding, urinary or bowel symptoms. Her systemic enquiry was normal. She was underwent laparoscopic cholecystectomy 5 years ago. Her first pregnancy was an uncomplicated normal vaginal delivery 4 years back. She was using CuT intrauterine contraceptive device (IUCD) since her post partum period which has been removed a month prior to the current pregnancy. She has no significant allergies.

On examination, she was not pale; her blood pressure was 110/80 mmHg; and the pulse rate was 78/min. Her abdomen was not distended and non tender. Vaginal examination did not reveal any adenexal mass and there was no cervical excitation. Investigations showed haemoglobin 9.5g/dl; bloodgroup was B positive. A trans-vaginal ultrasounds scan (TVS) was performed. There was a gestational sac noted at right cornu with a live fetus (CRL= 8w +3d). Another sac was seen at left interstitial portion (GS=2.7cm) but no fetal pole. Uterine cavity was empty and endometrial thickness was 4.4mm (fig.01).

She was managed with close monitoring in the ward. A repeat TVS was performed in one week time confirmed the right cornal pregnancy was progressing (CRL=9w+4d) while left cornal sac was regressing in size (fig.02). A laparotomy was performed.

There was a 5cm X 6cm size right cornal sac with minimal haemoperitonium. However, in the left cornal region the sac was not seen prominently. Right cornal resection and reconstruction was done(fig.03,04).

The patient was followed up with TVS in two weeks time to assess the left cornal sac which was confirmed as an early fetal demise.

She was reassured and advised regarding the risk during next pregnancy.

Discussion

Ectopic pregnancy occurs 22 in 1000 live births¹. It is very unpredictable and its incidence is increasing over time. Interstitial pregnancies are the rare variety among extra uterine pregnancies (2.4%). These ectopics grow in the portion of the tube that pass through the uterine cornu. So these tend to rupture violently with sudden catastrophic haemorrhages. Thus they are more hazardous and are medical emergencies. Many of the fatalities due to ectopic pregnancies are from cornual pregnancies (mortality rate 2-2.5%). A hand full of risk factors are attributed for its aetiology such as advanced maternal age, increased number of sexual partners, use of CuT IUCD, previous pelvic inflammatory disease(PID), previous ectopic pregnancy, pelvic surgery, and in vitro fertilization(IVF). Interstitial portion of fallopian tube is 1-2cm in length; and 7mm in width. It has slightly tortuous course. When the gestational sac implanted they lie within the muscular wall. Cornual ectopic has least myometrial distensibility. Thus they present relatively late (7-12 weeks)².

Concerning our case, the patient did not have any obvious risk factors. Though she had IUCD in situ for 4 years, that was removed one month prior to this conception. However, a sub-clinical PID cannot be excluded since the pre-pregnancy existence of IUCD. Laparoscopic cholecystectomy cannot be considered as a risk factor because it hardly causes any pelvic adhesion.

Conservative management for one week has been adopted after ultrasound diagnosis in our case. The reasons for this approach are two. One is diagnostic confusion. The second reason is to study the behavior of this rare bilateral condition. Cornal pregnancy is always a diagnostic puzzle. There are 3 criteria adopted in the ultra sound diagnosis.

i. in an empty uterus;
ii. A gestational sac seen separately and less than 1cm from the most lateral edge of the uterine cavity;
iii. A thin myometrial layer surrounding the sac. ‘Interstitial line’ sign is a useful sign used to diagnose the condition. It is a thin echogenic line extends directly upto the centre of cornual sac². A recent study
has evaluated various ultrasound signs to diagnose ectopic pregnancy. It has been noted interstitial line sign had better sensitivity (80%) and specificity (98%) than eccentric gestational sac (40% sensitivity and 80% specificity) and myometrial thinning (40% sensitivity and 93% specificity). However, sonographic appearance of interstitial pregnancies are complex and varied, making an accurate diagnosis difficult and thorough clinical correlation is necessary.

Diagnosis of cornual pregnancy is confused with 2 important differential diagnosis. Firstly, pregnancy in bicornuate uterus, in which uterine cavity appears shorter first and then longer. But, in cornual ectopics uterine cavity remains same in length. Second one is angular pregnancy in which embryo is implanted in lateral angle medial to the utero-tubal junction and round ligament. But, in cornual pregnancy embryo is implanted lateral to round ligament.

Surgery is the cornerstone in the management. It is done by laparotomy or laparoscopy or hysteroscopy. Cornual resection and reconstruction is usually performed as in this case. However, this mode is associated with decrease fertility rates and increased rates of uterine rupture in future pregnancies. One school of thought is ipsilateral uterine artery ligation before attempting repair that will reduce blood loss. Radical surgery is necessary in cases where haemorrhage is life threatening.

Laparoscopic treatment of cornual pregnancy can be safely carried out with good results in an institution with trained laparoscopist and adequate facilities. Laparoscopic cornual resection is carried out if ectopic sac size is more than 4cm while cornuostomy will be performed if it is less than 4cm. An endoloop method and the encircling suture method is simple, safe, effective and nearly bloodless.

Laparoscopic and ultrasound guided transcervical evacuation of cornual ectopic is also an alternative approach which carries a decreased morbidity and may less likely to compromise future reproductive function. Hysteroscopic removal under sonographic guidance after methotrexate is a conservative option for the treatment of cornual ectopic in some patients. Hysteroscopic endometrial resection under laparoscopic control is safe inexpert hands. Conservative surgical techniques applied to the management of cornual ectopics offer management with less morbidity and a quicker recovery. Avoiding myometrial entry also allows the option for a trial of labour with future pregnancies.

Combined local sonographically guided and systemic injection of methotrexate is associated with successful outcome in asymptomatic patients presenting with ectopic and fetal cardiac activity. Selective uterine artery embolisation associated with methotrexate can be used successfully in treating selected cases of early cornual pregnancy.

In treatment of cornual pregnancy, a uterine tourniquet in addition to vasopressin may allow for more conservative surgical procedure with reduced blood loss.

Acknowledgements
The authors would like to thank the woman for giving permission for her case to be reported.

References
10. Gary N. Frishman, Carol L Wheeler. The use of
Disclaimer

This article has been downloaded from WebmedCentral. With our unique author driven post publication peer review, contents posted on this web portal do not undergo any prepublication peer or editorial review. It is completely the responsibility of the authors to ensure not only scientific and ethical standards of the manuscript but also its grammatical accuracy. Authors must ensure that they obtain all the necessary permissions before submitting any information that requires obtaining a consent or approval from a third party. Authors should also ensure not to submit any information which they do not have the copyright of or of which they have transferred the copyrights to a third party.

Contents on WebmedCentral are purely for biomedical researchers and scientists. They are not meant to cater to the needs of an individual patient. The web portal or any content(s) therein is neither designed to support, nor replace, the relationship that exists between a patient/site visitor and his/her physician. Your use of the WebmedCentral site and its contents is entirely at your own risk. We do not take any responsibility for any harm that you may suffer or inflict on a third person by following the contents of this website.