Cervical Pregnancy : An Uncommon Ectopic Pregnancy

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Introduction

Ectopic implantation of fertilized ovum in cervical canal is both rare and dangerous, since the trophoblast can invade the blood supply [1]. Its incidence is 1:16000 to 1:18000 of all pregnancies [1,2] and 0.1% of all ectopic pregnancies [1]. Dilatation and curettage (D&C) precedes it in 70% of cases [2]. Japan has a highest incidence of 1:1000, due to is, high incidence of elective abortion in Japan [1].

Case Report

A 35 year old lady, P2 L2 A1, with history of having undergone medical termination of pregnancy at six weeks by D&C one year back, was admitted on 15 May 2006. She was having heavy bleeding per vaginum for last two to three days. She was using six sanitary napkins per day. Her last menstrual period was on 16 April 2006, and had spotting on 15 May 2006. There was history of passage of big clots. There was no history of nausea, vomiting, pain abdomen and contraceptive use. General physical examination was within normal limits except that the patient was obese weighing 80 kg. Per abdominal examination revealed no lump, tenderness, rigidity or guarding. Per speculum examination revealed enlarged cervix and bleeding through os. Per vaginal examination revealed patulous external os and exact size of uterus could not be made out due to fat abdominal wall. Urine pregnancy test was positive, all other investigations were within normal limits. Transabdominal ultrasound revealed normal size uterus with 14 mm endometrial thickness and the internal os was closed. The cervix was enlarged and a gestational sac measuring 16.9 mm with a small foetal pole, invading cervical wall was visualized. A diagnosis of cervical pregnancy was made. Patient opted for hysterectomy. Total abdominal hysterectomy was done on 31 May 2006. Gross specimen revealed upper part of cervix bulging on right. Cut section of specimen showed right-sided wall of cervix eroded by products of conception, in upper part. Histopathological examination confirmed cervical ectopic pregnancy which showed chorionic villi in juxtaposition with cervical epithelium (Fig. 1).

Discussion

Ectopic pregnancy is one, in the which fertilized ovum gets implanted in a site other than the normal uterine cavity [3]. Cervical pregnancy is second rarest form of ectopic pregnancy, after abdominal pregnancy [1]. It has to be distinguished from the product of conception in cervical canal during a natural course of an abortion [4]. Rubins criteria help in confirmation of the diagnosis. The cervical glands must be opposite the attachment of trophoblast / placenta. Attachment of trophoblast must be below the level of entrance of uterine vessels in to the uterus or anterior peritoneal reflection. Foetal elements must be absent from the corpus uteri. However these criteria could only be ascertained by specimen examination. Therefore there are clinical criteria for diagnosis of this condition, proposed by Paalman & Mc Elin. These include uterine bleeding without cramping pain following period of amenorrhoea, hourglass shape of uterus, partly open external os, closed internal os, product of conception entirely confined with in the cervix

Fig. 1 : Microscopic section at the level of bulge shows chorionic villi beneath the cervical mucosa.

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and firmly attached to endocervix. Doppler studies can also assist in diagnosis by locating the uterine arteries and presence of blood flow around the sac, which is suggestive of an implanted sac rather than passing one. Surgical methods of treatment such as total abdominal hysterectomy, D&C and tamponade by inflating foleys catheter balloon. Nonsurgical methods of treatment include use of methotrexate, uterine artery embolisation and intracervical catheter or balloon tamponade [5,6]. A combination of non surgical modalities can be used in stepwise conservative approach to the management [6,7]. Historically, 70% of reported cervical pregnancies have required hysterectomy for treatment [8]. The possible aetiological factors responsible for this cervical ectopic pregnancy could be cervical implantation of the fertilized ovum because of previous D&C. Today, nonsurgical treatments are the first line of therapy [9]. The following conditions are necessary for medical management; haemodynamically stable patient without bleeding or with mild bleeding, menstrual age of less than 10 weeks for viable cervical pregnancy, no active renal or hepatic disease, no evidence of leucopenia or thrombocytopenia. The anticancer drug methotrexate has been used successfully to treat cervical pregnancy.

The agent has been injected directly into the gestational sac with or without KCl to induce foetal death. It is also given systemically @50 mg/sqm of body surface area as single dose therapy. It can also be given @0.1mg/kg body weight/day IM on Day 1,3,5 and 7 alternatively with folinic acid in doses of 0.1 mg/kg/day IM on day 2,4,6 and 8 as multiple dose schedule. No more than five doses of methotrexate are to be given without a gap of one week. More advanced pregnancies,

require induction of foetal death or high-dose and prolonged therapy with methotrexate.

Conflicts of Interest

None identified

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Journal Scan

Rush RM JR, Kjorstad R, Starnes BW, Arrington E, Devine JD, Andersen CA. Application of the Mangled Extremity Severity Score in a combat setting. Mil Med 2007; 172:777-81.

The aim of this study was to examine the Mangled Extremity Severity Score (MESS) in a combat setting. Data on extremity injuries were collected from a forward surgical team. MESS and Revised Trauma Score values were retrospectively calculated for each patient. Student's t test was used to compare amputated and salvaged limbs. A total of 60 extremities were identified in 49 patients. There were 10 (20%) major vascular repairs. MESS values differed significantly for the eight amputations performed (mean MESS, 7.87±1.91) and 50 salvaged extremities (mean MESS,

2.44±0.438; p=0.001). The authors from Department of Surgery, Madigan Army Medical Centre, Tacoma, USA concluded that a MESS of >7 correlated with amputation, thus validating the MESS in a combat setting. A young average patient age and high-energy injury mechanism on the battlefield leave ischemic time and shock as the most important factors in dictating whether a MESS is >7 or <7.

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