

Cervical intramural pregnancy: Report of a rare case

Abhishek Sharma, Ranapratap Ojha¹, Soumit Mondal¹, Sarbani Chattopadhyay¹, Parama Sengupta

Departments of Pathology, College of Medicine and Sagore Dutta Hospital, ¹Calcutta Medical College and Hospital, Kolkata, West Bengal, India

ABSTRACT

Cervical pregnancy is an extremely rare condition of ectopic pregnancy with potential grave consequences if not diagnosed and treated early. A case of intramural pregnancy in the cervix is being reported for its rarity. Early diagnosis is imperative to preserve fertility, otherwise if the pregnancy is disturbed, it may precipitate massive haemorrhage, which may require hysterectomy to save the patient.

Key words: Cervical pregnancy, ectopic pregnancy, hysterectomy

Address for correspondence:

Dr. Abhishek Sharma,
Department of Pathology, College of
Medicine and Sagore Dutta Hospital,
Kolkata, West Bengal, India.
E-mail: abhshk79@rediffmail.com

INTRODUCTION

Cervical ectopic pregnancy is extremely rare, accounting for less than 1% of all ectopic pregnancies where the fertilised ovum is implanted in the endocervix below the internal os.^{1,2} Cervical pregnancy is a potentially life threatening condition that may present with an unexpected profuse bleeding secondary to the erosion of cervical blood vessels.³ Cervical pregnancy commonly presented with massive haemorrhage leading to hysterectomy and even death in extreme cases.³ A case of intramural pregnancy in the cervix is being reported for its rarity.

CASE REPORT

A 22-year-old lady, P1₊₁, presented at the emergency room, with bleeding P/V. She gave history of having amenorrhea for 12 weeks. A positive pregnancy test report was with her, carried out 1 month back. Routine blood test showed a Hb% of 9 gm%. Ultrasonography (USG) showed [Figure 1] moderately bulky uterus (98 mm × 76 mm × 65 mm), with empty endometrial canal. Midline endometrial echo was not shifted. Endometrial thickness was normal 7 mm. Internal os was closed. A heterogeneous space occupying lesion (SOL) was found (61 mm × 60 mm) in the cervical region. Sonographic impression was that of a cervical ectopic pregnancy. No adnexal mass was detected and the ovaries were normal. No fluid was present in pouch of Douglas (POD). No pleural fluid/ascites was

present. Beta human chorionic gonadotrophin (hCG) level was 28700 mIU/ml at this point of time. Bleeding per vaginal (P/V) was continuous and heavy. General condition of the patient started deteriorating. Our patient presented with active heavy bleeding and from the beginning, owing to the deteriorating condition of the patient termination of the pregnancy was strongly favoured by both physicians and the patient. Emergency laparotomy was carried out and hysterectomy was performed after obtaining the consent.

The specimen composed of the uterus with cervix [Figures 2 and 3]. No adnexa were present. The uterus measured 9 cm and cervix measured 11.5 cm. Endometrial cavity was empty. Internal os was not open. Cervix showed the presence of adherent haemorrhagic mass, infiltrating into the wall, situated below the anterior peritoneal reflection. On histological examination, no product of conception was seen in sections from the body of the uterus and endometrium showed features of secretory phase. Sections from the haemorrhagic mass in cervical wall showed chorionic villi amidst a lot of haemorrhage [Figures 4 and 5], establishing the diagnosis of cervical pregnancy.

DISCUSSION

Cervical pregnancy is a rare form of ectopic pregnancy (0.1%).¹ Common pre-disposing factors are prior dilatation and curettage (D and C), most commonly done for termination of pregnancy, prior caesarean section and *in vitro* fertilisation (IVF). The condition is to be differentiated from the cervical phase of an incomplete abortion or a bleeding cervical fibroid.⁴ Important ultrasonic criteria to distinguish cervical pregnancy from an on-going spontaneous abortion include (a) echo-free uterine cavity; (b) ballooned cervical canal with gestational sac in endocervix and (c) closed internal os.⁵ clinical and histological criteria include (a) uterus surrounding the distended cervix is smaller; (b) internal os is not dilated.

Access this article online

Quick Response Code:



Website:

www.nigeriamedj.com

DOI:

10.4103/0300-1652.119670



Figure 1: Ultrasound picture showing SOL lining close to cervix



Figure 2: Hysterectomy specimen showing haemorrhagic mass close to cervix

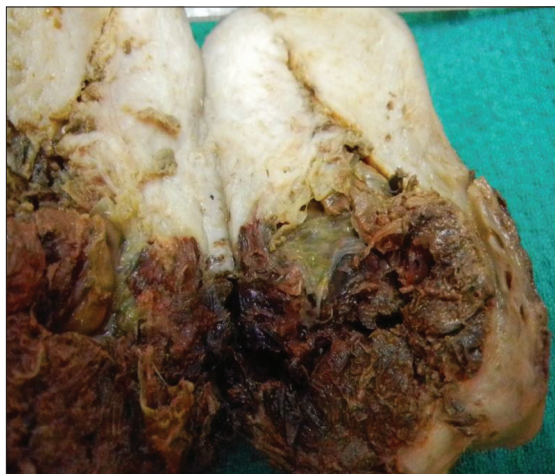


Figure 3: Cut open specimen showing extensive necrosis and haemorrhage in the lower part

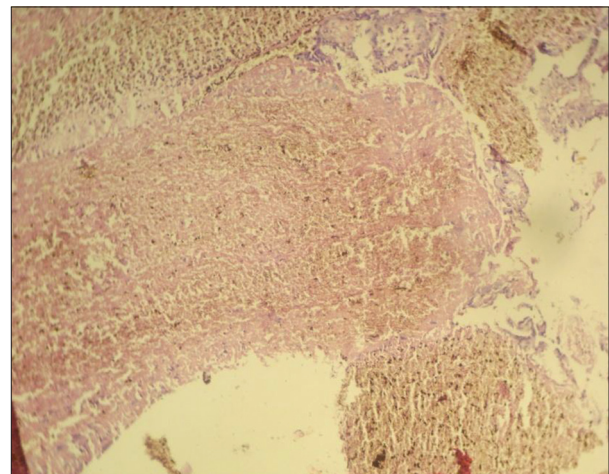


Figure 4: H and E stained section showing extensive necrosis, haemorrhage with chorionic villus, $\times 400$

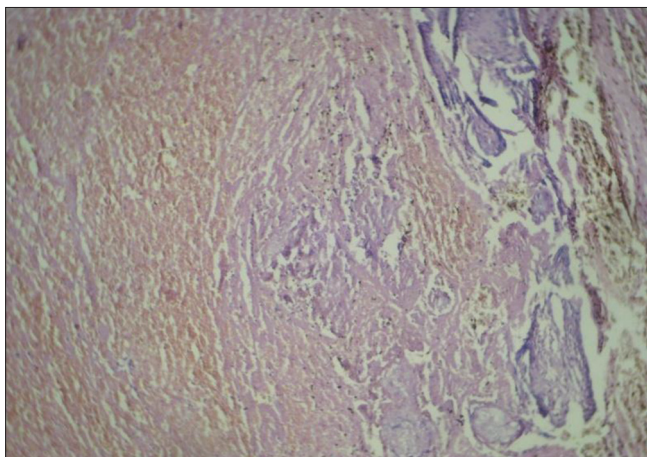


Figure 5: H and E stained section showing necrosis haemorrhage with chorionic villus, $\times 400$

endocervix and the conceptus grows in the fibrous wall of the cervix, which makes it difficult for the glandular tissue to lay in close proximity to chorionic villi. The most common presenting feature is painless vaginal bleeding and massive haemorrhage, as occurred in the present case, which may demand hysterectomy.⁶ Thus, it has high morbidity potential and massive haemorrhage may be fatal also.

Cervical cerclage, tamponade of the uterine cervix with a foley catheter, curettage followed by local prostaglandin instillation or vaginal packing can be used for arresting haemorrhage; if these methods fail, ligation of the descending branches of the uterine arteries, bilateral hypogastric artery ligation or as a last resort, hysterectomy may be necessary,⁷ which was unavoidable in the present case.

(c) Curettage of the endometrial cavity is non-productive of placental tissue and (d) external os opens earlier than in spontaneous abortion. All these criteria were fulfilled in this case. Usually, trophoblastic tissue erodes through

Mortality and morbidity can be avoided and fertility can be preserved by nonsurgical management such as intra-amniotic and systemic methotrexate administration. Uterine artery embolization is carried out when

methotrexate fails or cannot be used.² This requires early diagnosis before disturbance of the conception starts. Transabdominal and transvaginal ultrasound are integral tools for diagnosis and magnetic resonance imaging can further confirm this rare condition. A high index of suspicion and clinical and radiological expertise are indispensable for early diagnosis that can save the organ, but in this case hysterectomy could not be avoided.

REFERENCES

1. Marcovici I, Rosenzweig BA, Brill AI, Khan M, Scommegna A. Cervical pregnancy: Case reports and a current literature review. *Obstet Gynecol Surv* 1994;49:49-55.
2. Ben Farhat L, Ben Salah Y, Askri A, Dali N, Hendaoui L. Conservative treatment of a cervical twin pregnancy with uterine artery embolization. *Diagn Interv Radiol* 2010;16:248-50.
3. Agdi M, Tulandi T. Surgical treatment of ectopic pregnancy. *Best Pract Res Clin Obstet Gynaecol* 2009;23:519-27.
4. Anate M, Ismaila GA. Cervical ectopic pregnancy: A case report. *West Afr J Med* 1996;15:123-5.
5. Hofmann HM, Urdl W, Höfler H, Hönigl W, Tamussino K. Cervical pregnancy: Case reports and current concepts in diagnosis and treatment. *Arch Gynecol Obstet* 1987;241:63-9.
6. Ushakov FB, Elchalal U, Aceman PJ, Schenker JG. Cervical pregnancy: Past and future. *Obstet Gynecol Surv* 1997;52:45-59.
7. Ranade V, Palermino A, Tronik B. Cervical pregnancy. *Obstet Gynecol* 1978;51:502-3.

How to cite this article: Sharma A, Ojha R, Mondal S, Chattopadhyay S, Sengupta P. Cervical intramural pregnancy: Report of a rare case. *Niger Med J* 2013;54:271-3.

Source of Support: Nil, **Conflict of Interest:** None declared.