ejpmr, 2022,9(2), 577-579

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

ISTHMOCELE MIMICKING HAEMATOMETRA: A RARE CASE REPORT

Dr. Twinkle Sood*

M.S. Obstetrics and Gynaecology, Indira Gandhi Medical College Shimla, Himachal Pradesh.

***Corresponding Author: Dr. Twinkle Sood**

M.S. Obstetrics and Gynaecology, Indira Gandhi Medical College Shimla, Himachal Pradesh.

Article Received on 06/12/2021 **Article Revised on 27/12/2021** **Article Accepted on 18/01/2022**

ABSTRACT

Isthmocele or caesarean scar defect appears as fluid filled pouch like defect at the site of previous caesarean section. It is formed as a result of incomplete healing of isthmic myometrium after a low transverse uterine incision performed for caesarean section. As the incidence of caesarean section is increasing so is the incidence of isthmocele. Most of the cases are asymptomatic though some patients may have pelvic pain, menstrual symptoms or secondary infertility. Diagnosis is usually incidental on a transvaginal ultrasonography (TVUS), hysterosalpingogram (HSG), saline infusion sonogram (SIS), hysteroscopy or MRI. Treatment of the defect is essential if patient is symptomatic. I report a case of 27 year P_{1+0} who presented with the complaint of postmenstrual spotting and pelvic pain for the past 1 year. On further investigations a probable diagnosis of either haematometra or an isthmocele was kept. Laparotomy was performed and patient was found to have isthmocele. The defect was repaired and the patient was discharged. This case aims at providing information to the clinicians regarding its unusual presentation, diagnosis and management.

KEYWORDS: *Isthmocele, caesarean scar defect, incomplete healing.*

INTRODUCTION

There is a worldwide increase in the incidence of caesarean section.[1] This is mainly due to decrease in operative vaginal deliveries, vaginal birth after caesarean section (VBAC), breech vaginal deliveries, vaginal deliveries in twin gestation and increase in caesarean delivery on maternal request (CDMR), conception after assisted reproductive technologies.[2] Because of the increase in the incidence of caesarean section there has been an augmentation in the complications associated with it like haemorrhage, uterine rupture, wound dehiscence, adhesion formation and pelvic pain. Another late complication of caesarean section is caesarean scar defect also called as isthmocele or niche. Its incidence ranges from 24-56%.[3] Patient may remain asymptomatic or present with a myriad of symptoms like dysmenorrhea, dyspareunia, intermenstrual or post menstrual spotting and secondary infertility.[4] It may be diagnosed incidentally on transvaginal ultrasound usually in non-pregnant state as a wedge shaped anechoic area at the site of previous caesarean section.[5] As of now its management has not been standardised and typically involves invasive procedure.

CASE REPORT

A 27 year P_{1+0} (L_1) presented to the outpatient department of a tertiary care hospital. She had a history of emergency lower segment caesarean section (LSCS) 2 years back for placenta praevia. Thereafter she had lactational amenorrhea for 1 year following which she started having pelvic pain and post menstrual spotting lasting for 7-10 days for the past one year. On examination the patient had an average built with blood pressure of 120/74 mm of Hg and pulse rate of 88/minute. Per abdominal examination was normal. On pelvic examination external genitalia, cervix and vagina were healthy. On per vaginal examination uterus was anteverted, bulky~ 6-8 weeks size with evidence of a boggy mass 5*5 cm felt through anterior fornix which was firm to cystic in consistency, non mobile, non tender and uterus was not felt separate from the mass. Patient was advised thyroid function tests and serum prolactin levels along with an ultrasonography. Her haematological investigations were normal. TVUS showed an anechoic area`6*7 cm on the anterior uterine wall at the level of isthmus with thinning of myometrium around it with the 1st possibility of haematometra or a 2nd possibility of isthmocoele. Decision for laparotomy was taken. Intraoperatively there was evidence of a haematoma~5*5 cm at the site of previous scar effect (figure 1). Haematoma was drained which thereafter revealed a scar defect~2*2 cm. Repair of the defect was done and complete haemostasis achieved. Patient was discharged with stable vitals on 3rd postoperative day. On follow up after 3 months patient had relief from postmenstrual spotting and pelvic pain. She was advised not to conceive for 2 years and early booking and regular antenatal visits in the next pregnancy. She was counselled regarding the complications like scar ectopic, abortion and uterine rupture in next conception.

Figure 1: haematoma at the site of previous caesarean scar.

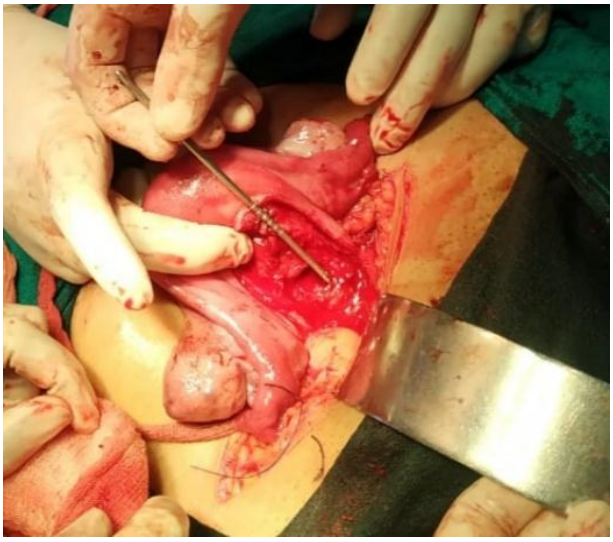

Figure 2: caesarean scar defect /"isthmocele".

DISCUSSION

There are many explanations for the development of caesarean scar defect like a) a very low incision through the cervical tissue b) impaired wound healing and c) improper technique of uterine closure during the prior caesarean section.[6] The most common complaint of patients with isthmocele is post menstrual abnormal uterine bleeding which the patient often describes as spotting of dark altered blood. The most plausible explanation for this is accumulation of blood in the pouch, impaired drainage due to myometrial defect and in situ production from new blood vessels. The larger the defect the more pronounced are the symptoms.[7] In the present case also the patient presented with post menstrual spotting which was due to collection of blood in the defect which was then diagnosed as haematoma formation intraoperatively . Other symptoms are dysmenorrhea, chronic pelvic pain and dyspareunia with an incidence of 53%, 39.6% and 18.3% respectively. This is due to chronic inflammation, presence of small polyp and lymphocytic infiltration of the scar.[8] Some patients may present with secondary infertility due to difficulty in the passage of spermatozoa and implantation of the embryo. Diagnosis and management in the non-pregnant state is ideal to avoid complications like caesarean scar ectopic and recurrent pregnancy loss in the subsequent pregnancies. Though currently there is no consensus on the definition of isthmocele, the diagnosis is made on history, clinical examination, ultrasonography and/or hysteroscopy.[9] On ultrasonography it appears as an anechoic area, triangular in shape at the site of previous caesarean scar with apex towards the isthmus. Other imaging modalities that can be used for the diagnosis are hysterosalpingography, hysteroscopy which allows for direct visualisation of the defect and MRI. Grading of the isthmocele is done based on the thickness and width of the defect. Grade 1 is defined as defect $\leq$ 15mm^3, grade 2: defect between 16-25mm^3 and grade 3 when the defect is $\geq$ 25mm^3.[10] Another classification is based on the degree of endometrial thinning at the level of defect which is defined as the ratio between the myometrial thickness at the level of defect and the thickness of adjacent myometrium.[11] The defect is called severe when the ratio is >50%. Though there is no standard consensus on the treatment, at present different surgical methods like hysteroscopic resection, laparoscopic excision and excision using vaginal route are being used for the correction of symptomatic isthmocele. Most frequently used method is hysteroscopic resection using a resectoscope which involves excision of fibrotic tissue and cauterization of abnormal vessels but if patient is desirous of future child bearing laparoscopic approach is preferred for effective suturing so as to strengthen the scar.[12] Moreover hysteroscopic resection has the risk of complications like uterine perforation and injury to urinary bladder. Since in the present case preoperative diagnosis of isthmocele was not confirmed, the patient was planning another pregnancy therefore decision for laparotomy was taken. On follow up there is an improvement in uterine bleeding in 59% to 100% of cases.[13] Significant improvement in symptoms was seen in this case as well in the follow up period after 2 months. This case report throws light on the symptomatology, diagnosis and management of isthmocele and how every clinician should be familiar with this rare complication of caesarean section so as to avoid any problems arising out of it in future.

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