Case report

FIVE CASES OF SCAR ENDOMETRIOSIS Ad-din Medical College Hospital in 2009-2010

Dr. Husne Ara Khatun, Prof. Dr. A.K.M. Anwar-ul Azim, Dr. Ferdousi Chowdhury, Prof. Dr. Sayeba Akhter

Summary

Scar Endometriosis is not a common condition but due to increased incidence of caesarean section. It is not rare now. We report five cases where the women age between 22-35 years develop swelling with tenderness in the scar following 1 years to 5 years of caesarean section, compliant was more marked during menstruation and ultrasonography of swelling showed multilocutated cyst. Excision biopsy followed by histopathology confirmed the diagnosis of scar endometriosis and women got relief from there complain after excision. Cases were followed up clinically

Scar endometriosis : Defined as presence of functioning endometrium in scar tissues.

Introduction

Endrometriosis is a condition in which presence of ectopic functional endometrial tissue outside the uterine cavity. Endrometriosis was first described by rokitansky in 1860. It is most commonly found in pelvis involving ovaries, fallopiantubes, posterior cul-de-sac, uterine ligaments, rectovaginal septum and surrounding pelvic peritoneum. Endrometriosis has been described in almost every area of female body. The most common extra pelvic appearance of Endrometriosis occur in the scar following a variety of obstetrical and Gynaecological surgery[1,2]. Spontaneous endrometriosis[3] in abdominal wall can be occurred. Majority of scar endrometriosis occurred following caesarean section. Incidence: 0.3-1%. In about 25% with concomitant pelvic endrometriosis. Though most common site is caesarean scar but there are case report of endrometriosis involving the rectus abdomen's mussle in virgin abdomen.4 Location of endrometriosis close to surgical scar is rare and difficult to diagnosis. Clinically the condition may be confussed with foreign body granoloma, incisional hernia, lipoma, fibroma, Sarcoma and abscess. These patients sometime first consult the general surgeon. When ever the condition occurred, the ectopic endrometrium respond to cyclical changes from ovarian hormones although there is developmentally delay in comparison with normally sited endrometriosis.

Case-1

In April 2009, 24 years old lady para 1+0 was attended several times in Gynae out patients department for feeling of something in two ends of scar following caesarean section which occurred 11/2 years back. Latter on these swelling were associated with tenderness and increase in size specially during menstruation. Physical examination showed two tender fixed firm nodules at two ends of scar; USG revealed multiloculated cyst may be infected mass. After excision biopsy, histopathology showed endometrial tissue containing glands and stroma. After excision she was treated ē antibiotic or analgesic. After ½ m there was no complain of swelling.

Case-2

In August 2009, 35 years old lady having para 1+3 (Spontaneous abortion) delivered her 1st baby by caesarean section 5 years back. Latter on, she develop a swelling on the left end of the scar one year after her operation. She also noticed that the swelling became more painful during menstruation. On physical examination a firm non mobile mass of (2×2) cm was felt. Ultrasonography report showed a subcutaneous nodular mass. After excision, biopsy, histopathology report showed fibrocartilagenous tissue containing endometrial glands and stroma. After 1 ½ month she was free from symptom.

Cass-3

In April 2010, 30 years old lady with para 2 with history of previous two caesarean section complained of pain and swelling in the left side of the scar after 2 years of last caesarean operation which occurred 4 years back. The swelling became painful during menstruation. On examination, a tender nodule was found in the left corner of caesarean scar. Excision biopsy showed endometrial glands and stroma with surround fibrous tissue.

Cass-4

In August 2010, a 22 years old 2nd gravid women admitted

with term pregnancy with history of previous caesarean section 3 ½ years back. She developed pain in left side of scar with a swelling before conception of 2nd pregnancy which was marked during menstruation. She felt no pain in between menstruation and during pregnancy. During delivery of 2nd baby by caesarean section, the mass was excised and sent for histopathology which showed fibrofatty tissue embedded with many endometrial glands and stroma.

Cass-5

In December 2010, a 29 years lady with para 1+2 complained of pain the operation area during menstruation for last 6 months and her caesarean section was done 3 years back. On examination, a tender small mass near the middle of the scar was felt. Excision biopsy was done and histopathotlogy showed endometrial glands and stroma with fibrous tissue.

Pathophysiology : Scar endrometriosis are develop to be the result of direct inoculation of the abdominal fascia/subcutaneous tissue with endrometrial cells during surgery; then the endrometrial tissue are stimulated with oestorgen. This theory is convicingly demonstrated by experiments in which normal menstrual effluent transported to the abdominal wall resulted subcutaneous endrometriosis[5]. During each menstrual cycle, the endrometrial deposit proliferate and then breaks down and bleed causing a local inflamatory reaction which may be followed over prolonged period of time by fibrosis; eventually chronic repision of the process disrupt and distorts the affected tissue and typically dense scar tissue, adhesion or endrometrioma may form.

Though the risk of malignancy is rare, long standing recurrent scar endrometriosis could under go malignant change.6 So awared. Carcino-sarcoma arising from atypical endrometriosis in a c-section scar[7].

Follow up and prevention : Good technique and proper care during c-section preventing scar endrometriosis. It has been suggest that at the end of surgery specially on uterus and fallopian tubes- the abdominal wall wound should be cleaned thoroughly and irrigated vigorously with high jet solution before closure[8]. Abdominal wall endometriosis after c-section: a preventable complication.

Discussion

Scar endometriosis is rare but as the rate c-section is increasing and incidence of diagnosed case of endometriosis (for laparoscopy) is increasing- the differential diagnosis of scar endometriosis should be kept in mind when swelling in or near the scar was present which resembling surgical lesion like hernia, haematoma, granuloma, abscess or tumour. The lesion may misdiagnose with stitch granuloma. The interval between operation and presentation of scar endometrioma varies from three month to 10 years. This cases develop after 1years to 5 years of c-section. Symptoms are non specific and may accompany abdominal pain even resembling an acute abdomen at the time of menstruation. Sever pain can be caused by development of autonomic and sensory innervation of ectopic endometrial growth. Most of this cases presented with development of nodule in c-section scar which were increased in size with duration of time and pain was more during menstruation.

Endometriosis is a disease of theory, exact cause of development is still unclear, Sampson coined the disease in 1921. There are two main theories extent in the literature which attempt to explain the origin of scar endometriosis. The transport theory points retrograde regurgitation of endometrial cells through fallopian tubes, vascular or lymphatic spread or direct implantation in surgical scar. The metaplasia theory hold that cells which have retained multipotention are located in extrauterine sites; these cells can undergo metaplasia under the proper stimuli to produce endometriosis.

Scar endometriosis in these patients could have occurred by either method. Endometrial cells could have been transported to scar at the time of c-section which subsequently stimulated with ovarian hormones or suture materials may stimulated the growing cells (which heal the wound) as foreign body inflmatory reaction to undergo metaplasia to endometriotic cell. More over the genetic and immunological factors can influences the development of the disease. It has been suggested previous to develop endometriosis that chronic inflamation may stimulate the development of endometrial tissue in kidney through metaplasia of renal tissue. Inflamation and fibrosis are characteristically found in the histology of the vicinity of scar. Endometriosis and these histology features were also found in these cases.

Clinical diagnosis can be made by careful history taking and physical examination. If women of reproductive age has symptoms of increasing cyclical or noncyclical pain in the nodules of scar or increase the size of the scar tissue at the time of menstruation-scar endometriosis should be suspected. Diagnostic test eg. computed tomography, MRI, Ultasound and needle biopsy (FNAC) have been used with varying degree of success and accuracy to establish the diagnosis of scar endometriosis. In these cases ultrsound

helped for suspision.

Medical management of scar endometriosis has been reported, but recurrence on cessation of therapy is also inevitable. So, surgical resection is the treatment; excision of the mass should be complete with margins wide enough to prevent recurrence. New treatment modalities are aimed at reducing vascularisation of ectopic growth. In these cases wide resection was done.

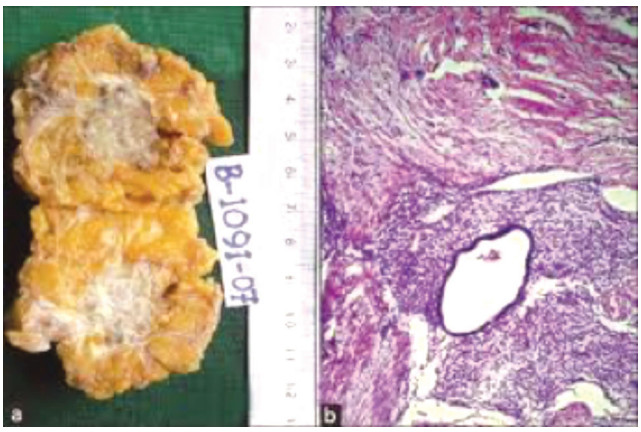

Fig: Macroscopic and Microscopic view of scar endometriosis

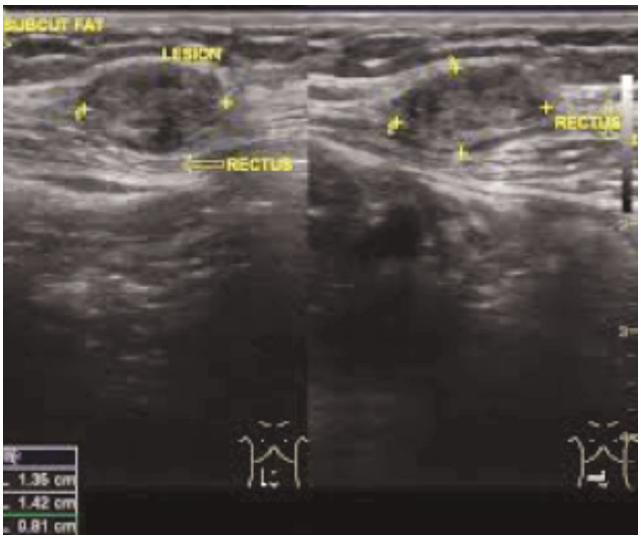

Fig: USG of scar endometriosis

Conclusion

Scar endometriosis is not common but one should have high index of suspicion when an women of reproductive age presented a painful swelling in the abdominal scar following obstetrical and gynaecological operation. It can be confused with varied surgical condition. Efforts should be made to make the proper diagnosis with the help of clinical history, examination and investigation like USG, MRI, FNAC. Medical treatment is not helpful, wide excision is the treatment of choice. Patients should be followed up for recurrence/Associated pelvic endometriosis should be explained.

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