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Original Research Article

A prospective study of abdominal wall endometriomas: a review of 16 cases

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ABSTRACT

Background: Endometriosis is a disorder in which an ectopic endometrial tissue grows outside the uterine cavity. The ectopic endometrium in abdominal wall is called as abdominal wall endometriosis (AWE). AWE is a very rare condition and exact incidence is not known. This is usually known to develop along with previous surgical scars especially following Caesarean section and Hysterectomy.

Methods: Retrospective analysis of the patients operated for AWE was done. Data relating to age, symptomology, and previous caesarean section, relation to symptoms with the menstrual cycle, physical examination, surgical treatment and post-operative course was analyzed.

Results: 16 patients were operated during the study period of 3 years between September 2013-september 2016. The ages ranged between 20-35 years. Presences of local mass and cyclical pain during menstruation were the main symptoms. Ultrasonography was done in all the cases and CT abdomen was done in few cases (2) to know the exact depth of the mass and to differentiate from other diseases. Wide surgical excision was carried out in all cases.

Conclusions: There is definite relationship with AWE and caesarean sections in women.

Keywords: Abdominal wall, Endometrioma, Endometriosis, Surgical excision

INTRODUCTION

Endometriosis is defined as presence of functional endometrial tissue in location outside the endometrial cavity and uterine muscles that usually respond to hormonal stimulation.¹ It was first described by Austrian pathologist Karl Freiherr von Rotitansky in 1860.² It is said to occur in 5-10% of the cases. Although it is more common in pelvic region, the extra pelvic occurrence of endometriosis is rare. AWE is still rare and is known to develop spontaneously and usually found at and around the site of scar of surgeries like hysterectomy, caesarean section, laparoscopy, tubal ligations and episiotomies. The exact incidence of AWE is unknown and the overall prevalence is around 0.01%-1% after caesarean section.³

AWE is often mistaken with some surgical conditions like abscess, stitch granuloma, lipoma or incisional hernia. One theory proposes the iatrogenic direct implantation and the other explains the transport mechanism.⁴

It is commonly seen within the peritoneum in the female pelvic cavity, ovaries, Douglas space and the uterosacral ligaments. It causes dysmenorrhea, dyspareunia, menstrual irregularity and infertility and there have been many theories described about the development of endometriosis and these are metaplasia, retrograde menstruation, venous and lymphatic metastasis and the mechanical transplantation within the incision area during surgery.⁵⁻⁷ The incidence of developing endometriosis in

the scar area after the caesarean section varies between 0,03-3,5%.^{7,8}

The common clinical presentation is presence of subcutaneous tumor and cyclical pain and swelling during the menstruation. But there may not be always mass in the complaints. In this condition, making the diagnosis is very difficult. Many methods such as computerized tomography and thin needle aspiration biopsy are used for diagnosis.⁷ Considering all the factors the present study was done with the following objectives to find out the risk factors for scar endometriosis and management of scar endometriosis.

METHODS

A Hospital based Prospective Interventional study was carried out in the Department of Obstetrics and Gynecology and Department of General Surgery at MallaReddy Institute of Medical Sciences a Tertiary care teaching hospital for a period of 3 years from September 2013 –September 2016. The study participants were all the women who had underwent previous LSCS and any other surgeries and presented with symptoms of mass and pain at the surgical site. During the study period, we enrolled 16 study participants.

A detailed history was taken with respect to Age, symptomology and relation of the symptoms with menstrual cycles, types and number of surgeries underwent in past, location of swelling. A detailed physical examination was done in all the study participants. For confirmation of diagnosis USG abdomen and CT abdomen was done. After diagnosis of abdominal wall endometriosis, the study participants underwent surgical management in form of wide excision and mesh repair in the department of General surgery. All patients were followed up and recurrence rate was nil in the study. Histological confirmation was done post-surgically. No case of malignancy was reported in the present study.

Before the start of the study all the study participants were informed about the purpose of the study. Informed and written consent was taken from all the study participants. Statistical analysis was done using Microsoft Excel software in form proportions.

RESULTS

Table 1 shows maximum number of study participants were in the age group of 20-30years (87.5%) and 12.5% were in the age group of 30-35years.

Table 1: Age wise distribution of study participants.

Age (Years)	Frequency	%
20-30	14	87.5
30-35	02	12.5
Total	16	100

Table 2: Distribution of study participants with the number of LSCS done.

LSCS	Frequency	%
Single LSCS	06	37.5
Two or More LSCS	10	63.5
Total	16	100

Table 2 revealed near about 63.5% of the study participants underwent two or more LSCS in past and 37.5% had once LSCS.

Table 3: Distribution of study participants with types of surgeries.

Surgeries	Frequency	%
LSCS	14	87.5
Other than LSCS	02	12.5
Total	16	100

Table 3 shows majority of the study participants (87.5%) had underwent LSCS as major surgery compared to other surgeries (12.5%).

Table 4: Distribution of study participants with presenting symptom.

Presenting symptom	Frequency	%
Mass	16	100
Pain		
Cyclical	10	63.5
Non-cyclical	06	37.5

In Table 4 among all the study participants mass and pain was the main presenting symptom. Those who were having pain among them 63.5% of them had cyclical pain and 37.5% had non-cyclical pain.

Table 5: Distribution of study participants with location of mass.

Location of the mass	Frequency	%
Under the scar	13	81.25
In the scar	03	18.75
Total	16	100

In Table 5, it was found that 81.25% of the study participants had mass under the scar and 18.75% had mass in the scar.

Table 6: Diagnostic tool to detect the mass.

Diagnosing Tool	Frequency	%
Ultrasonogram (Abdomen)	14	87.5
CT (Abdomen)	02	12.5
Total	16	100

Table 6 shows the mass was detected in 87.5% was doing ultrasonography of abdomen and in 12.5% of study

participants CT Abdomen was required to find out the mass.

After wide excision of the scar endometriosis, the patients were followed every 6 months for a period of 1 year so check for recurrence. There was no recurrence seen. Histopathological report showed no malignancy.

DISCUSSION

Maximum number of study participants were in the age group of 20-30 years (87.5%) and 12.5% were in the age group of 30-35 years. In another study 91% of the study participants were in the age group of 25-35 years.⁹ Near about 63.5% of the study participants underwent two or more LSCS in past and 37.5% had once LSCS. Majority of the study participants (87.5%) had undergone LSCS as major surgery compared to other surgeries (12.5%). The study findings were similar with other study were near about 82% had LSCS as major surgery.¹⁰ LSCS considered as main risk factor for the formation of scar endometriosis which is similar to present study.¹⁰

Among all the study participants mass and pain was the main presenting symptom. Those who were having pain among them 63.5% of them had cyclical pain and 37.5% had non-cyclical pain. In another study done by LathaLakshmi et al, cyclical pain was seen in 57% of the study participants. It was found that 81.25% of the study participants had mass under the scar and 18.75% had mass in the scar were as in another study 96% of the study participants were having abdominal mass in the scar which is more than the present study.⁹ In another study mass in the scar was seen in 63% of the study participants & 73.8% presented with abdominal pain.¹⁰ In another study 80% of the study participants had painful mass at the site of scar.¹⁰ The mass was detected in 87.5% by doing ultrasonography of abdomen and in 12.5% of study participants CT Abdomen was required to find out the mass. In another study mass was detected by ultrasonography in 34% of study participants which is less than present study and 40% of them CT scan was used as main diagnostic method.¹⁰ In another also wide excision of the scar endometriosis was one.⁹ After wide excision of the scar endometriosis, the patients were followed every 6 months for a period of 1 year so check for recurrence. There was no recurrence seen. Histopathological report showed no malignancy.

CONCLUSION

Although AWE is a rare disease, it can occur after the gynecological and obstetrics procedures. There is a

clearcut relationship between Caesarean section and AWE. Wide excision of the tumour should be attempted in order to avoid recurrence.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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