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Case Reports

Post Cesarean Subcutaneous Endometriosis: A Report of Two Cases.

Mohammed Abdul A, *Usman Zubairu D, Nana Madugu H, Umma Bawa S

Reproductive Health and General Gynecology Unit, Department of Obstetrics and Gynecology, Faculty of Clinical Sciences, College of Medical Sciences, Ahmadu Bello University, Zaria.

ABSTRACT

Caesarean scar endometriosis is a relatively rare condition, affecting about 1 – 2% of patients following caesarean section. Its incidence may be on the rise in view of the increasing caesarean section rates across the world, Nigeria inclusive. While the predominant presentation is usually that of cyclical pain and swelling in the affected scar, variable presentations may occur leading to diagnostic dilemmas. Diagnosis is still largely clinical. Early diagnosis and treatment via wide surgical excision is important to deal with the symptoms which could be severe and debilitating. We hereby present two cases of caesarean scar endometriosis following emergency caesarean sections. Both patients were diagnosed clinically and treated with wide surgical excision of the lesion.

Key words: Caesarean scar endometriosis, surgical excision
Conflict of Interest – NIL

***Corresponding Author**

Address – Obstetrics and Gynaecology Department,
A. B. U. Teaching Hospital, P. M. B. 06, Zaria, Kaduna State, Nigeria.
Email – u_danjuma@yahoo.com
TELE: +2348036429374

INTRODUCTION

Endometriosis is a relatively common pathology in females within the reproductive age group.[1] It is defined as the presence of functional endometrial tissue outside the endometrial cavity.[2] It was first described by Karl von Rokitansky in 1860.[3] The aetiopathogenesis of this condition is still poorly understood, with several theories proposed to explain its occurrence. Major sites of endometriosis include the pelvis and pelvic peritoneum, bladder, rectum, bowel, lymph nodes, anterior abdominal wall, lungs, pleura, kidneys, and the brain.[3]

Scar endometriosis is generally a rare form of endometriosis,[2][3][4] though its incidence is probably on the increase due to the rapid rise in

caesarean section rates worldwide with resultant risk of caesarean scar endometriosis (CSE).[3][5][6] CSE occurs in about 1 – 2% of patients following caesarean section.[1]

CSE usually has a variability of symptoms and clinical presentation, often being confused with other surgical conditions, leading to a delay in diagnosis and treatment.[2][3] The predominantly reported symptom however is pain of variable severity at the site of the scar affected, which is usually cyclical, but sometimes non-cyclical.[2}[3}[4][5][6] There is usually associated swelling at the site of the pain, and sometimes a fleshy mass or ulcer that bleeds during menstruation.[3] Symptoms could be debilitating in a significant number of patients, negatively impacting their quality of life.

The mainstay of treatment is wide surgical excision of the endometriotic lesion, which has a generally good outcome, with low recurrence rate.[1][2][3][4] We hereby present two cases of CSE, seen and managed in our unit in 2021. These cases are presented because the condition is still quite rare particularly in Sub Saharan Africa and requires high index of suspicion for early diagnosis and prompt management to relieve patients of the usually bothersome symptoms.

CASE 1

Mrs. MH was a 32-year-old P2+0 2Alive, last childbirth 3 years prior to presentation by emergency Cesarean section due to obstructed labour.

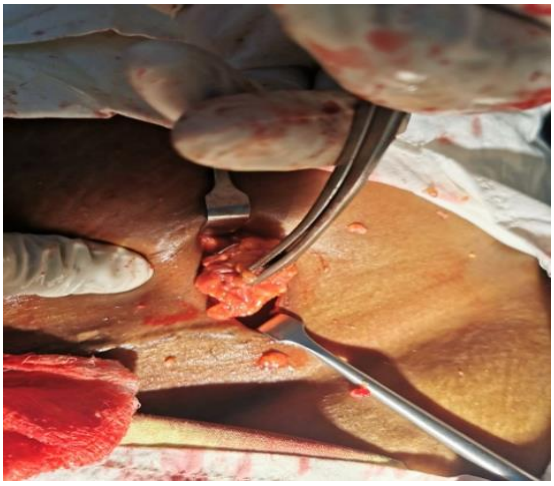

Fig 1. Dissection of the nodule (case1)

She presented with a two-year history of recurrent, cyclical left sided Pfannenstiel scar pain, and swelling. Symptoms were first noticed about 8 months after her last delivery following resumption of menstruation. Pain was often severe enough to prevent her from routine activity and sleep, for which she was admitted into hospital on two separate occasions. There was no bleeding or ulceration at the site of pain.

On examination during menstruation, she was in painful distress, with a rounded mass about 4cm in diameter located 2cm from the left edge of the healed Pfannenstiel scar, covered by normal skin. There was tenderness over the left iliac fossa, worse over the mass. The mass was not attached to the overlying skin, but not freely mobile in any plane. An ultrasound scan done revealed a hyperechoic subcutaneous mass located about 2cm below the skin surface, measuring 4.81 by 4.1cm. A diagnosis of a subcutaneous nodule likely due to post-cesarean scar endometriosis was made.

She was counselled for surgical excision. Routine haematological and renal function tests were done. Intra operative findings were those of a rounded subcutaneous mass, about 3 – 4cm below the skin surface, measuring about 6cm in diameter, rough and hard in consistency. It extended from the subcutaneous tissue through the rectus sheath to the surface of the rectus muscles, adherent to all these tissues. An excisional biopsy was done with a free margin of about 2 – 3cm round the mass (Fig 1&3).

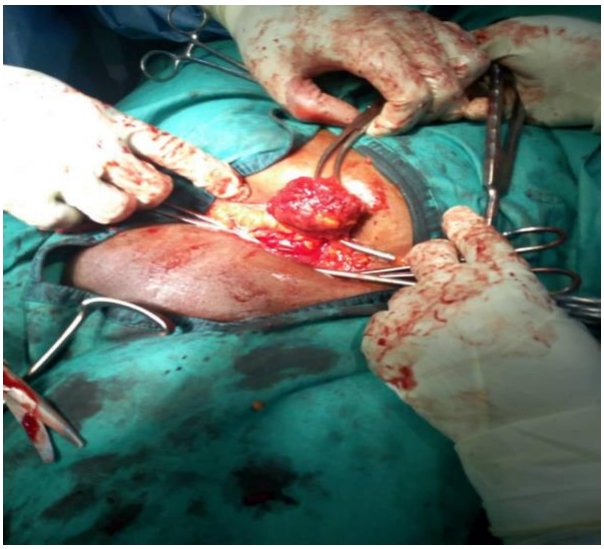

Fig 2. Dissection of the nodule (case 2)

She had a good post-operative recovery. Histological examination of the specimen confirmed the diagnosis of endometriosis (H-001-21).

She was followed up for 6 months post-operatively, with complete resolution of her symptoms, and no recurrence during follow up.

CASE 2

Mrs. HA was 25 years old para1 who had an emergency Cesarean delivery in June 2018. She presented in 2021 with recurrent pains at the left lateral end of her Pfannenstiel Scar during her menstrual period for six months prior to presentation. Few weeks before presentation, she started to feel a lump at the same place with the pains. There were no additional symptoms. The Cesarean Section was done for poor progress in labour and was delivered of a live male neonate with good Apgar scores and is doing well. There were no immediate post-operative complications.

Examination findings essentially revealed a mildly tender firm to hard mass about 4 by 4cm located in the subcutaneous space about 2cm from the left lateral end of the Pfannenstiel Scar. An impression of an endometriotic nodule was entertained and was prepared for removal. The nodule was removed under local anesthesia via an incision over the nodule (fig 1). The nodule measured 4 by 6cm (fig 2) and attached to the Rectus Sheet. There was no post-operative complications and no recurrence of nodule after six months of follow-up. Histological examination of the nodule (H-1591-21) was consistent with endometriosis.

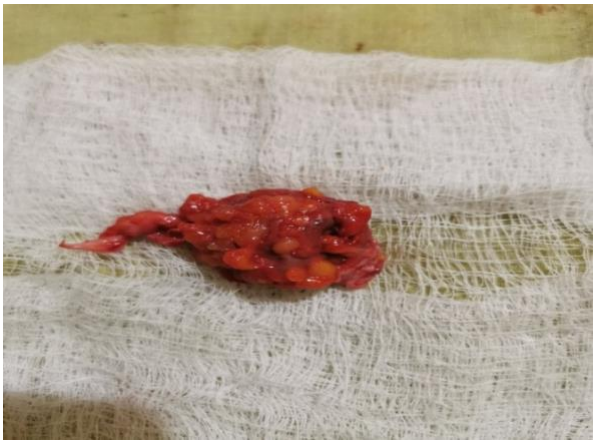

Fig 3. The removed endometriotic nodule (case 1)

DISCUSSION

Endometrioses usually occurs in the pelvic peritoneum and ovaries, but occasionally at extra-pelvic sites such as the lungs, bowel, brain, and abdominal wall.[2][3] While abdominal wall endometrioses may develop spontaneously, it is usually an iatrogenic complication of previous surgical procedures, the commonest of which is caesarean section.[2] The two cases documented in this report were both complications following emergency caesarean section. This was also the case in reports by Ding et al from Taiwan [4], Goel and coworkers from India [5], and Khachani et al from Morocco [3]. This may be explained by the implantation theory of endometriosis, from direct implantation of endometrial tissue in the abdominal incision during caesarean section [7]. This tissue may survive and proliferate due to appropriate hormonal stimulation and nutrient supply, leading to caesarean scar endometriosis.[7]

While many cases of CSE occur following caesarean section (more than 50% of cases in one study) [3][6], the incidence following caesarean section is still very low, which suggests that the implantation theory may not be sufficient to explain the pathogenesis of the condition.[6] There may also be some hereditary predisposition that makes some patients more susceptible than others.

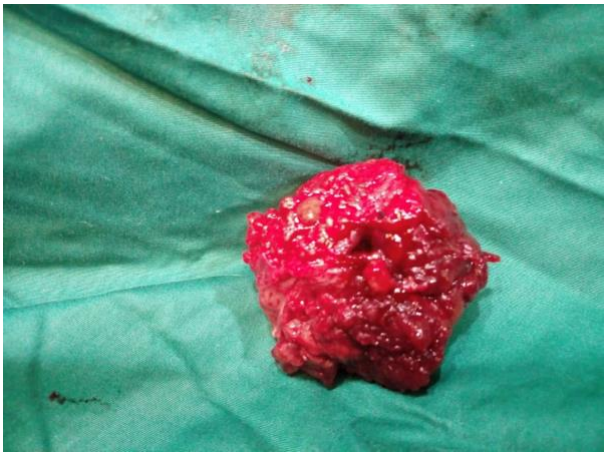

Fig 4. The removed nodule (case 2)

Certain reports suggested that most caesarean scar endometriosis masses that occurred in Pfannenstiel incisions are usually located in a corner of the incision.[6][8] This was the presentation in both cases in this report; both patients had Pfannenstiel incisions and presented with lesions in the left lateral end of their surgical scars. This is thought to be possibly because endometrial cells are less easily removed from the corner of the incisions.[6] One of the cases reviewed however presented with a lesion at the mid-point of the surgical scar.[4]

The commonest symptoms reported include a mass or swelling on the caesarean section scar, and cyclical pain at the site of the mass. Less common symptoms include non-cyclical pain, and dysmenorrhea,[1][3][5][6] and sometimes a fistulous communication with the anterior abdominal wall skin [3][8]. The two patients in this report both presented with cyclical painful lower abdominal masses on their caesarean section scars. However, there may be some variability of symptoms leading to diagnostic dilemma.[2][3] Two cases reported from India were initially misdiagnosed and managed as stitch granulomas.[2] A significant number of these patients are usually referred to general surgeons for evaluation because they may be misdiagnosed as hematomas, granuloma, keloids, incisional hernias, or even malignancies.[8]

Diagnosis is usually suspected clinically from history and examination findings,[6] which was the case in the two patients being discussed. However, diagnostic dilemmas can be resolved with the use of Doppler ultrasonography, computed tomography, and even Fine needle aspiration and cytology (FNAC), which is recommended as a quick, cost-effective diagnostic tool.[3][8] FNAC may however put the patient at risk of producing new endometriotic implants at the puncture site, as well as bowel injury since diagnosis may be uncertain.[3]

The recommended treatment involves large surgical excision with clear margins, and reconstruction of damaged tissue.[1][2][3][4][8] Some reports also recommend treatment with danazol post-operatively to prevent recurrence,[4]. This is not widely accepted though, with some reports even stating that medical treatment is not helpful in the management of this condition.[2] No recurrence was reported at 24 months post-operatively following surgical excision alone in some reports,[3] though another study reported one case of local and another case of pelvic recurrence within a 34 month follow-up period.[1] Both cases reviewed in this report had surgical excision alone, with no post-operative complications, and very good clinical outcome. There was no recurrence of symptoms or mass lesions at 6 months of follow-up.

The definitive confirmation of diagnosis is from histological examination of the excised tissue [1][6][8], as was the case in the two patients being discussed. Both specimens were confirmed to be endometriosis. Further evaluation with explorative abdominal laparoscopy may be indicated to rule out intraperitoneal lesions in symptomatic patients, as scar endometriosis may be associated with pelvic localization.[1]

Suggested preventive measures such as pelvic lavage before closure of the abdominal wall, ensuring closure of the parietal and visceral peritoneum, and change of needle and instruments for closure of superficial abdominal wall layers, are not backed by evidence.[3]

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