Ultrasound Investigation of Scar Endometrioma in a Patient with Bladder Exstrophy: Case Report

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ABSTRACT
Extra pelvic forms of endometriosis is common, however, endometriosis after bladder exstrophy surgery has rare been reported, and here we present one of the first reported case. A 32-year-old woman with a history of bladder exstrophy was aware of a painful induration at the operative scar located in the mid lower abdominal wall, and presented at an Australian hospital. She had had endometriosis in 2011 and she was managed with medical treatment. When she was born underwent surgery in Recife, Pernambuco – Brazil. She was followed-up for more than 25 under the care of a pediatric surgeon. She had several urinary infection and partial incontinence. Otherwise she was a normal woman with boyfriend. She went to college and graduate in architecture. She moved to Australia two years ago and is being follow-up by urologist. Her main concern is her partial urinary incontinence and the willing of being pregnant. In the past two weeks she presented with increasingly colic abdominal pain, which seemed to be located under the lower abdominal scar. Her abdominal ultrasound investigation revealed “There is a solid lesion demonstrating mild internal vascularity in the lower anterior abdominal wall, deep to the surgical scar and 6 cm inferior to the umbilicus. This could represent an endometrioma”. She has been managed with medical approach. The desire of sexual intercourse and pregnancy is being discussed. Artificial insemination is other way of fulfilling motherhood dream.

Keywords: Bladder Exstrophy; Endometrioma; Scar Endometriosis; Brazil

Introduction
Although endometriosis occurs most frequently in the intrapelvic organs, many cases of extrapelvic endometriosis throughout the body have been reported. Among them, endometriosis in a surgical scar is rare, and its clinical diagnosis can be confused with other lump lesions, such as abscesses, hematomas, and suture granulomas¹⁻⁵.

The most frequent antecedent surgical procedure among patients with scar endometriosis is a Cesarean section⁶. It was found just one previous report of endometriosis associated with ectopia vesica in scientific usual searched language.

The purpose of this report is to provide a new case for helping clarification of the association between bladder exstrophy and endometriosis, which could also help to lend evidence to the pathogenesis of bladder endometriosis.

Case Report
A 32-year-old woman, who underwent surgery for bladder exstrophy in her neonatal period, was followed up in Pernambuco – Brazil for 25 years. She presented several urinary tract infections. In 2011 she was managed by her gynecologist for endometriosis. Two years ago she moved for Australia and has been followed-up by urologist. One week ago she was aware of a painful induration at the operative scar located in her lower abdominal wall, deep to the surgical scar. An ultrasound revealed a subcutaneous solid lesion demonstrating mild internal vascularity deep to the surgical scar and 6 cm inferior to the umbilicus. This image was interpreted as endometrioma (Fig. 1).

The patient’s pain coincides with her menstruation. She has been treated as carrier of endometriosis since she had past history of this condition. She is willing to be pregnant and has been asking for the risk evaluation for this endeavor.

Discussion
Endometriosis affects up to 22% of all women, about 25% of patients presenting with subfertility and up to 45% of women with pelvic pain¹. Cesarian section and hysterectomy are associated with almost 70% of the cases².

Endometriosis is described in almost all organs. Among these sites, the presence of endometrial tissue within the abdominal wall is uncommon². Of these some are located in the scars including cesarean section and acute appendicitis. However, there are few reports of this entity subsequent to surgical management for bladder exstrophy¹.

Endometriosis in the bladder is rare⁶. There are at least three explanations for this condition: (1) development
from metaplasia of Mullerian duct remnants; (2) extension of adenomyotic lesions arising in the myometrium and subsequently invading the bladder; or (3) iatrogenic displacement of the decidua after gynecologic surgery.

As for the other pathologic conditions including endometrial lesions, fewer than 20 cases of remnants of Mullerian ducts of the bladder have been reported. This rare entity is characterized by the presence of an admixture of at least two types of Mullerian tissue leading to endometriosis, endocervicosis, and endosalpingosis in the lamina propria and muscularis mucosa of the bladder. Mullerianosis can occur without any history of pelvic surgery and the histologic and immunohistochemical features support the idea of origin in embryonic duct remnants.

Although any conclusive pathologic evidence of an association between bladder endometriosis and the bladder extrophy cannot be made in the present case, metaplasia from residual tissue during surgery for the bladder extrophy or retention of embryonic duct remnants during organogenesis are possible etiologies. However, the presence of clinical symptoms during menstrual period in association with highly likelihood of ultrasound images makes very probable that the lesion is almost certain to be a scar endometrioma. As a limitation, we can say that the lack of histology from the mass adds very small possibility of other condition.

As for the patient desire to be pregnant she may require revision genitoplasty for successful sexual function, although in some series over 40% report dyspareunia. Quality of life in young adult patients treated for bladder extrophy is still a challenging situation. Although relationships and sexual intercourse have been reported in approximately 80% of adult female patients with good outcome after successful bladder extrophy treatment, dyspareunia is a matter of concern and the information should be conveyed to the patient.
Current management includes spontaneous pregnancy and elective cesarean section with involvement of high-risk obstetrics and urologic surgery. This surgical approach is preferred for neonatal health and to protect the bladder originally reconstructed.

Conveying all information using medical literacy is important for providing evidence for the patient acceptance of taking the risk for making the dream motherhood come true. Scientific facts, ethics and humanities should be ahead of fears and tears. This kind of approach is next to the evidence based medicine. Autonomy principal should be the compass of patient follow up.

**Conclusion**

In adult woman with good repair as a newborn is a challenge mission especially in North-eastern region - Brazil. As the patient is a grown-up woman her desire of sexual intercourse and pregnancy should be important considerations for the urologist a gynecologist who nowadays assist her.

**References**


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