

**INCIDENTAL ENDOMETRIOSIS DURING CESAREAN SECTION SHOWS
MARKED DECIDUALIZATION: A CASE REPORT
OF UNCOMMON PRESENTATION**

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ABSTRACT

Endometriosis is common gynecological condition that may arise spontaneously or in surgical scar, particularly of cesarean section, and it may and cause diagnostic confusion with other surgical conditions. Endometriosis can undergo many metaplastic changes, and this is a case report of markedly decidualized endometriosis.

Key words: *endometriosis, cesarean section, metaplastic, decidualized*

INTRODUCTION

Endometriosis is a common gynecological problem and it is estimated to affect approximately 6–10% of the women of reproductive age (Raffi *et al*, 2011). Spontaneous cutaneous endometriosis is limited to the umbilicus and inguinal area. In other locations, such as the lower abdominal wall, it practically always arises in surgical scars, particularly those from cesarean sections. (Rosai, 2011).

The prevalence of surgically proven endometriosis in scars was 1.6 %.(Kilin *et al*, 2002). Scar endometriosis is rare and difficult to diagnose, often confused with other surgical conditions and may be misdiagnosed as stitch granuloma, inguinal hernia, lipoma, abscess, cyst, incisional hernia, desmoid tumor, sarcoma, lymphoma, or primary and metastatic cancer (Al-Jabri, 2009). Endometriosis is subject to any of the metaplastic, hyperplastic, and atypical changes that may supervene in the orthotopic endometrium (Rosai, 2011). Marked hemorrhage or myxoid

decidual changes in the stroma may render the recognition difficult and lead to an overdiagnosis of malignancy (Nogales *et al*, 1993) (Pellegrini, 1982). Decidualization is the hypertrophy of the endometrial stroma cells and the development of the decidua formed in response to progesterone to optimally adapt the endometrium for pregnancy (Sammour *et al*, 2005).

CASE PRESENTATION

A 32 years old female, Gravida(2)Para(2)Abortion (0) had cesarean section due to cephalopelvic disproportion, incidental previously asymptomatic subcutaneous nodules found at scar of previous cesarean section performed two years ago. Both pregnancies were normal without complications and all previous obstetric sonographies were normal. The nodule measures 5x3.5x3.5 cm and postoperative period was uneventful. Histopathology showed endometrial glands, markedly decidualized stroma, and areas of hemorrhage and fibrosis which confirmed the diagnosis of endometriosis. Figure 1 and 2.



Figure 1: Endometrial glands surrounded by decidualized stroma.
Hematoxylin and Eosin stain. 100 X.

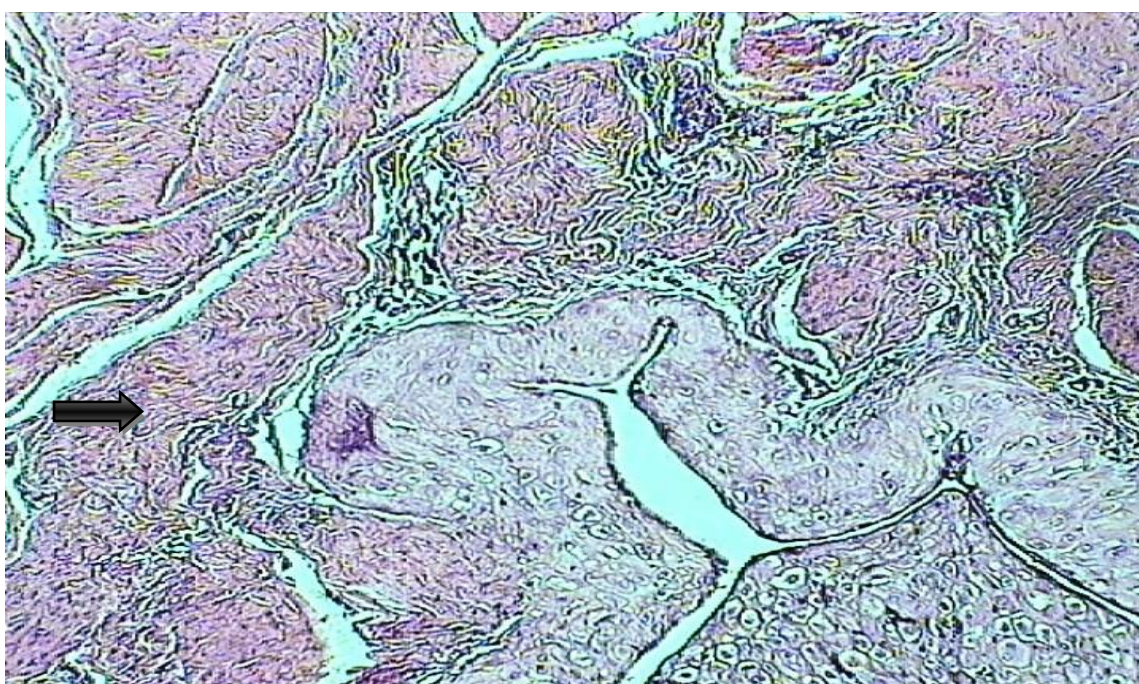


Figure 2: Endometrial glands and decidualized stroma surrounded by fibrosis (arrow).
Hematoxylin and Eosin stain. 400 X.

DISCUSSION

Among the clinical diseases of the uterus, endometriosis is a major public health concern for women of reproductive age (Ramathal *et al*, 2010). Endometriosis is associated with pelvic pain and infertility. Initial attachment of the menstrual tissue,

containing both glandular epithelial and stromal elements, at extrauterine sites establishes early lesions (Ramathal *et al*, 2010).

During pregnancy, decidualization can occur outside the uterus, especially in ovarian endometriomas (Tazegül *et al*,

2013). Scar endometriomas are believed to be the result of direct inoculation of the abdominal fascia or subcutaneous tissue with endometrial cells during surgical intervention and subsequently stimulated by estrogen to produce endometriomas (Al-Jabri, 2009). Decidualization is the process of conversion of the normal endometrium during pregnancy into a specialized uterine lining adequate for optimal accommodation of the gestation. This change is induced mainly by progesterone and involves hypertrophy of the endometrial stromal cells leading to thickening of the normal endometrium and giving rise to the decidua. Decidualized tissue can grow during pregnancy to acquire a gross appearance that macroscopically mimics a malignant tumor (Rami *et al*, 2005). During pregnancy, decidualization may appear in

the endometrial tissues outside the uterus, especially in the endometrial stromal cells of the ovarian endometriomas (Sammour *et al*, 2005). Diagnostic criteria of endometriosis are the presence of 2 of the following 3 features outside of the uterus: endometrial glands, endometrial stroma, and hemosiderin-laden macrophages (Tazegül *et al*, 2013), but pregnancy may cause radical modifications of the endometrioma, which may determine relevant diagnostic difficulties (Barbieri *et al*, 2009). In our case endometriosis was an asymptomatic incidental finding, and the effect of pregnancy related hormonal changes lead to development and enlargement of the lesion that necessitate further postoperative evaluation to exclude more endometriotic foci.

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