Case Reports in Women's Health 6 (2015) 1–3

Contents lists available at ScienceDirect

Case Reports in Women's Health

journal homepage: www.elsevier.com/locate/crwh

# A case of bladder endometriosis that became symptomatic during the third trimester

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ARTICLE INFO

*Article history:*
Received 5 August 2014
Accepted 26 February 2015
Available online 11 April 2015

*Keywords:*
Endometriosis
Pregnancy
Cystoscopy
Bladder cancer

ABSTRACT

*Background:* The urinary tract endometriosis is observed in 1–2% of the patients and in 90% of these cases, there are endometriotic nodules in the bladder. With respect to knowledge, it is generally believed that pregnancy cures endometriosis. However in this case, symptoms developed during the third trimester of pregnancy.
*Case report:* We report a case of 31 year old, 30 week pregnant woman with a vegetative mass with 33 × 33 × 21 mm dimensions and irregular borders on the posterior wall of the bladder. After the cesarean section, the vegetative and superiorly localized mass on the internal wall of the bladder was excised with partial bladder excision. The patient had no other apparent findings of pelvic endometriosis at operation but the pathology result indicated endometriosis.
*Conclusion:* Although this case shows that endometriosis may become symptomatic during pregnancy, it has to be underlined that it cannot be discerned whether it is consequent to progress of the disease or to pregnancy-mediated modifications of a pre-existing lesion.


## 1. Introduction

The urinary tract endometriosis is observed in 1–2% of the patients and in 90% of these cases there are endometriotic nodules in the bladder [1,2]. Patients with bladder endometriosis may have many non-specific symptoms that make timely diagnosis difficult [3,4].

The effects of pregnancy on endometriosis are widely recognized. With respect to knowledge, it is generally believed that pregnancy cures endometriosis. However in this case, symptoms developed during the third trimester of pregnancy. In this case report, we aim to evaluate this contrary event together with an evaluation of the literature.

## 2. Case Report

A 31 year old, 30 week pregnant woman, gravida 3, para 2 (with 2 times cesarean section history) applied to our clinic with the symptoms of dysuria. Her medical history did not indicate any history of endometriosis, nephrolithiasis or urinary tract infection. Physical evaluation of the patient was normal but hematuria was detected in her urinalysis. No other abnormal findings were detected in her laboratory tests, and urine culture test came with normal result. On her transabdominal ultrasonography, a vegetative mass with 33 × 33 × 21 mm dimensions and irregular borders was detected on the posterior wall of the bladder. Because the border between the uterus and the bladder at the posterior of the mass was indefinite, cystoscopy was planned for the patient. Cystoscopy did not identify a pathology, and clinic follow-up was decided for the patient. During a follow-up period of 8 weeks, there were no obstetric problems. In the 38th week of pregnancy, a second preoperative cystoscopy again found no pathology. In the same week, she underwent a cesarean section operation. Intraoperatively, the bladder was detected as adherent to the anterior wall of the uterus, and a mass of 3 cm diameter was palpated inside the bladder (Fig. 1), involving the bladder mucosa (Fig. 2). After the cesarean section, the vegetative and superiorly localized mass on the internal wall of the bladder was excised with partial bladder excision (Fig. 3). The patient had no other apparent findings of pelvic endometriosis at operation. No complications occurred in the postoperative stage and the pathology result indicated endometriosis.

## 3. Conclusion

The hormonal changes and endometrial decidualization during pregnancy are expected to decrease the symptoms of endometriosis. In theory, decidual cells inhibit endometriosis and potentially result in a natural resolution of the disease. In our case, however, symptoms

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http://dx.doi.org/10.1016/j.crwh.2015.02.001

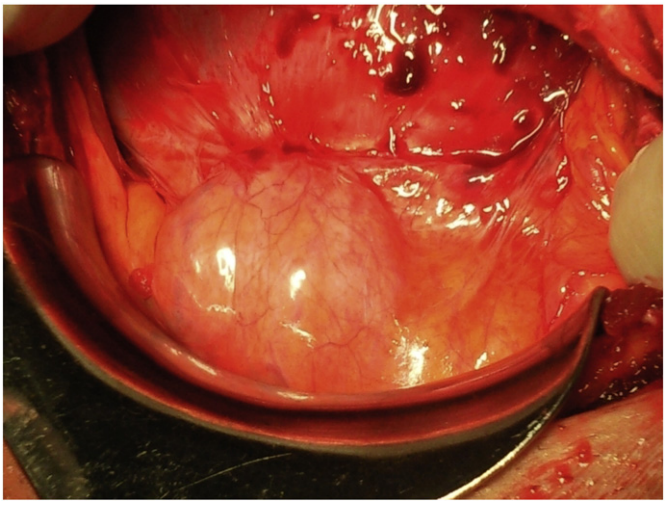

**Fig. 1.** A mass of 3 cm diameter inside the bladder.

appeared during third trimester and persisted during pregnancy. Although during pregnancy the symptoms of the patient generally disappear due to endocrinal reasons and decidualization [4], in our case the decidualization and the mechanical trauma due to stromal development in the bladder nodule might be themselves have triggered the symptoms of hematuria and dysuria.

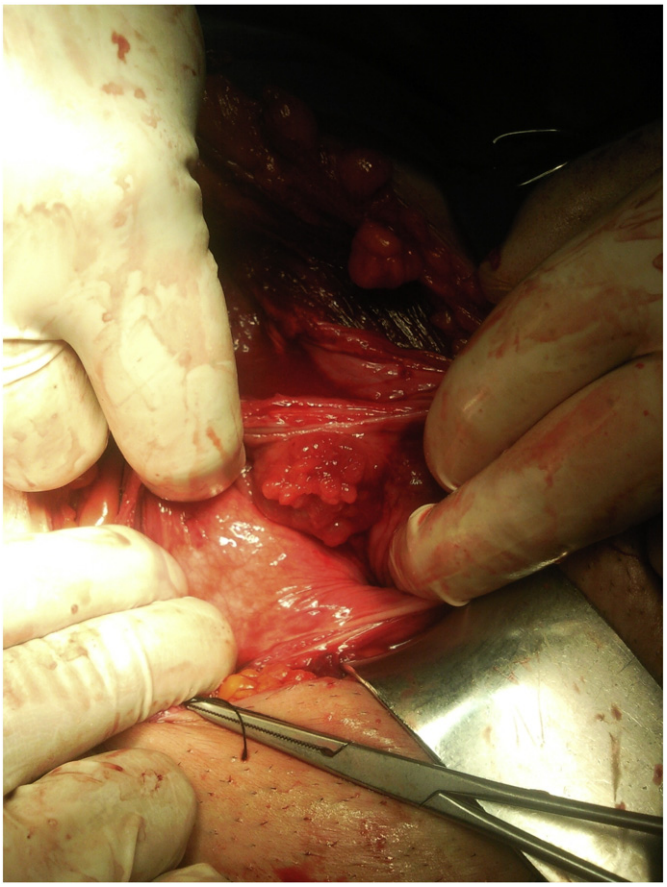

**Fig. 2.** A mass of 3 cm diameter involving the bladder mucosa.

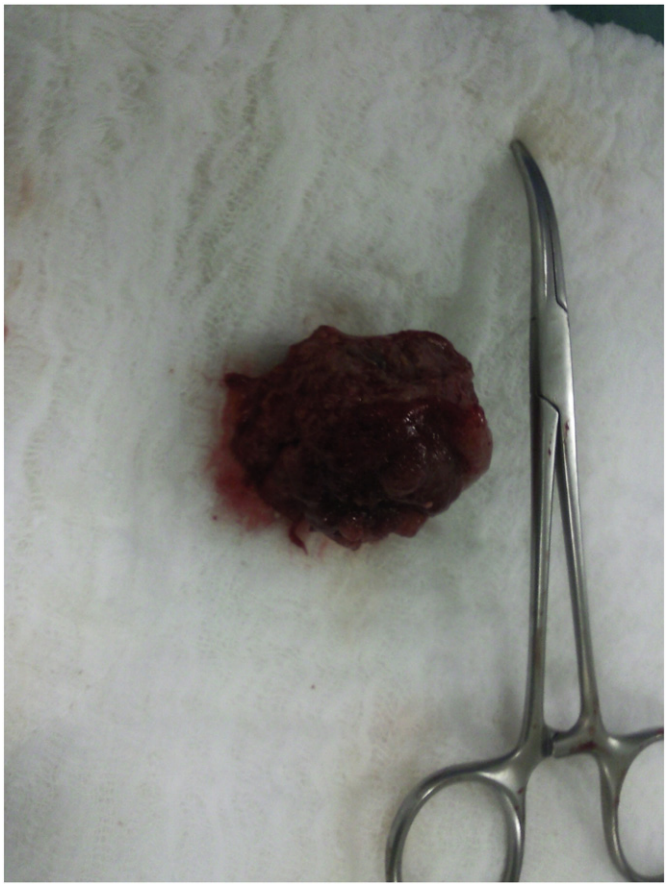

**Fig. 3.** A mass was excised with partial bladder excision.

The presence of a mass and hematuria overlap with symptoms for bladder carcinoma and can result in wrong diagnosis. The similarity of symptoms and excluding malignancy necessitates cystoscopic biopsy for diagnosis. 80–90% of patients with bladder cancer have painless hematuria and it usually appears in the second and third trimester [5] which further supported the tumor diagnosis. Two rigid cytoscopies on the 30th and 38th weeks of the pregnancy did not identify any pathology. This finding was confusing because in the cesarean section the 3 cm sized mass was palpated and identified as involving the bladder mucosa. We thought that during pregnancy, the enlarged uterus can press on the bladder and cause technical difficulty during cystoscopy.

This case is signifying that with decidual changes endometriotic nodules in the bladder can mimic malignancy during pregnancy. Our case also suggests that cystoscopy during pregnancy may fail to detect bladder nodules. Close follow-up during pregnancy and perioperative or postoperative care and interventions are required for these masses.

Although this case shows that endometriosis may become symptomatic during pregnancy, it has to be underlined that it cannot be discerned whether the reported case is actually consequent to progress of the disease or to pregnancy-mediated modifications of a pre-existing lesion.

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