



Bilateral Inguinal Endometriosis: A Case Report and Literature Review

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Abstract

Pelvic endometriosis is a prevalent disease that causes a significant negative impact on women's daily life. Unusual locations of endometriosis have been reported. We report the case of a 32-year-old nulliparous black woman with no previous history of invasive abdominal or vaginal surgeries presenting with bilateral inguinal masses. Clinical examination revealed tender and fixed indurations. Magnetic resonance imaging confirmed the presence of one endometriosis lesion in the canal of Nuck along with implants in the pelvis. First by laparoscopy pelvic endometriosis was treated. Right inguinal dissection revealed numerous tumefactions. We removed the biggest mass and stopped due to mismatch between clinical and radiological findings. Histopathology confirmed inguinal endometriosis infiltrating the striated abdominal muscles. Inguinal endometriosis is rare and usually affects the right groin. A history of pelvic endometriosis or invasive abdominal and vaginal surgeries may lead to the accurate diagnosis. This case reported in unique in the bilateral localization of the lesions in a nulliparous woman with no medical or surgical histories. Inguinal endometriosis is a challenging disease that should be a differential diagnosis of painful inguinal masses in women.

Keywords: Inguinal endometriosis; Extra-pelvic endometriosis; Inguinal mass

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Introduction

Endometriosis affects 10% to 15% of reproductive-age women [1]. It is usually limited to the pelvis but unusual locations have been described. Inguinal endometriosis is extremely rare, affecting 0.3% to 0.6% of all endometriosis cases [2]. It was described in 1896 and since few cases have been reported, among them 90% occurred on the right side [3]. This report is the first publication of a bilateral inguinal endometriosis case in a nulliparous woman with no history of deep endometriosis or gynecologic surgeries.

Case Presentation

A 32-year-old nulliparous black woman presented to our department for inguinal masses. Her medical and surgical histories were unremarkable besides a hysteroscopy 7 weeks ago for irregular vaginal bleeding due to a simple endometrial hyperplasia. The woman noticed the masses nine months ago with a constant pain and cyclic exacerbations during menses. Clinical examination revealed a bilateral firm and tender masses of 3 cm and 2 cm located lateral and superior to the pubic tubercle with no impulse with cough or Valsalva maneuver. Magnetic resonance imaging confirmed the presence of one cystic heterogeneous mass containing endometriosis implants of 3.3 cm × 3 cm × 1.7 cm on the right side and a smaller left inguinal lesion along with signs of pelvic endometriosis, consistent with the diagnosis of endometriosis in the pelvis and in the canal of Nuck, yet the patient had no clinical sign of deep endometriosis.

A laparoscopy was decided to assess the pelvis for deep endometriosis and to resect inguinal nodes. Endometriosis was found on ovaries, round and uterosacral ligaments. All lesions were coagulated. There was neither inguinal hernia or hydrocele.

Then, inguinal dissection showed an extensive infiltration by numerous firm masses that were in continuity with the extra peritoneal portion of the round ligament. We managed to remove the biggest masses as well as the affected portion of the ligament.

Operative time was 90 min and blood loss was minimal. The recovery was uncomplicated and

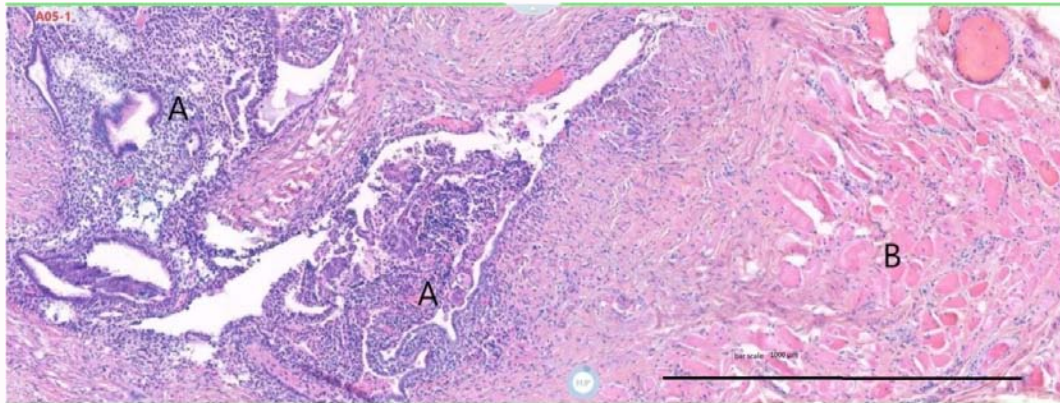


Figure 1A: Histopathology. A represents the endometrial glands and stroma and B represent the striated abdominal muscle. (A: H&S staining, 8X, scanner 3DHistech, viewer Coolpix).

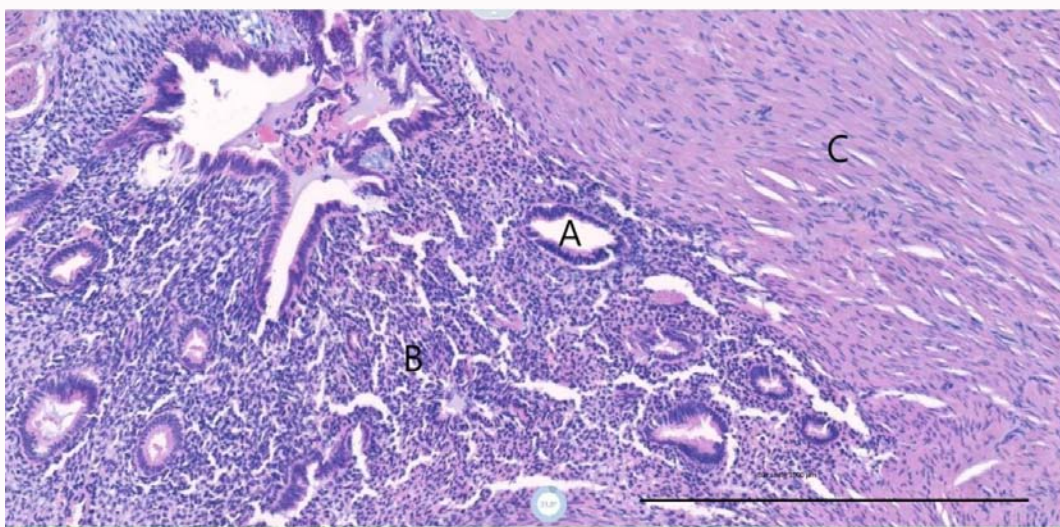


Figure 1B: Histopathology. A represents the endometrial glands, B the stroma and C fibrosis. (B: H&S staining, 15X, scanner 3DHistech, viewer Coolpix).

the patient discharged on day 2.

Histopathology study confirmed the presence of endometriosis in the striated abdominal muscular tissue (Figure 1).

Because of the presence of deep endometriosis in the pelvis, the patient was started on oral contraceptive pills. The patient informed consent was obtained prior to the publication of her case.

Discussion

Inguinal endometriosis is a rare disease. Patients present with inguinal masses associated with pain during menses. Others exhibit less typical signs, which make the preoperative diagnosis possible in only 38% of the cases [4]. A history of pelvic endometriosis or surgery may lead to the diagnosis, but cases with no prior gynecologic procedures have been described [5]. Pelvic endometriosis is found in 91% of the cases [6]. Iatrogenic dissemination during surgeries is possible and endometriosis implants can appear 45 days to 20 years after it [6].

Our patient had no history of deep endometriosis or gynecological interventions prior to the onset of her symptoms.

Inguinal endometriosis can be found in the extra peritoneal portion of the round ligaments, skin and scars, adipose tissue, walls

of hernia sacs, canal of Nuck and inguinal lymph nodes. In this case, endometriosis was infiltrating the abdominal striated muscles.

The right groin is affected in 90% of the cases [3]. Among reported cases in the literature, a bilateral involvement is very rare [6].

Imaging facilitates the diagnosis. Ultrasonography shows a hypoechoic a vascular cystic or solid mass [2]. CT scan is nonspecific but is helpful to rule out other pathologies. T1-weighted and fat-saturated T1 magnetic resonance imaging show hyperintense hemorrhagic cysts within hypo intense inflammatory tissue [1]. Fine needle aspiration can provide an accurate diagnosis [2]. In our patients' case, MRI described endometriosis implants in the canal of Nuck. The laparoscopy ruled out any parietal defect therefore imaging is not always accurate for the diagnosis of this disease.

We reviewed more than 30 case reports published on PubMed between 1956 and 2021 on inguinal endometriosis. Authors opted for the surgical management to diagnose and treat the disease. Patients showed no post-operative recurrence, even after long follow up periods (up to 30 months according to Licheri et al. [7]). Only one case of recurrence after 6 months was reported by Ziaja et al. [8]. A re-excision procedure was performed followed by medical therapy and the patient remained asymptomatic afterwards. Another recurrence was noted by Kamio et al. [9] and was related to a uterine

abnormality. All reported cases were right-sided. Only one case of left side recurrence was described in the literature. This case reported in unique in the bilateral localization of the lesions.

Hormonal suppressive therapy is indicated in cases of pelvic endometriosis, it may prevent recurrences.

Inguinal endometriosis is a challenging diagnosis. It should be one of the differential diagnoses of painful inguinal masses in reproductive-age women.

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