Premenstrual inguinal swelling and pain caused by endometriosis in the Bartholin gland: a case report

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Abstract Endometriosis is a pathological condition characterized by the presence of endometrial tissue outside the endometrium. The authors describe a case of endometriosis in the Bartholin gland, which was initially diagnosed as a Bartholin gland cyst. The correct diagnosis was later made on the basis of the patient history and the results of the ultrasound examination. Endometriosis in the Bartholin gland should be considered in the presence of dyspareunia, cyclic swelling and pain at the vulvar level, and characteristic ultrasound findings.

Keywords Bartholin gland · Endometriosis · Ultrasonography

Riassunto L'endometriosi è una condizione patologica caratterizzata dalla presenza di tessuto endometriale al di fuori dell'endometrio. Presentiamo un caso di endometriosi di ghiandola del Bartolino, diagnosticata inizialmente come tumefazione cistica della ghiandola del Bartolino e successivamente correttamente inquadrata grazie all'interpolazione dei dati anamnestici con le caratteristiche ecografiche. Questo caso evidenzia come sia lecito sospettare un'endometriosi della ghiandola del Bartolino nei casi di dispareunia, ciclica tumefazione e dolore vulvare, associati ai reperti ecografici.

Introduction

The Bartholin (or major vestibular) glands are identical, symmetrical, oval-shaped glands measuring approximately 1 cm (long axis). They are situated on either side of the posterior walls of the vaginal vestibule, on the inferior aspect of the urogenital trigone, behind and partially covered by the posterior extremities of the vestibular bulbs. They are tubuloacinar glands that produce mucoid secretions, which are released through the Bartholin ducts. The ducts measure approximately 2.5 cm in length and open into posterolateral walls of the vaginal vestibule, between the hymen and the labia minora. The ducts, which are lined with transitional epithelium, can become obstructed at the vestibular orifice due to an accumulation of secretions, resulting in cystic dilatation [1, 2].

Description of the case

One year after undergoing cesarean section, a 34-year-old primipara was referred to our staff for assessment of appreciable inguinal swelling at the level of the left vaginal vestibule. For several months, the swelling had appeared during the desquamative phase of the menstrual cycles and then disappeared. Approximately, 20 days prior to our examination, the swelling had recurred during the same phase of the cycle, but this time it persisted when menstruation had ceased. Aside from the swelling, the patient presented dyspareunia and vulvar pain.

On physical examination, the swelling appeared mobile with a firm, elastic consistency. Ultrasound revealed an oval, anechoic mass measuring approximately 3 cm (long axis), with well-defined margins and corpuscular content (Fig. 1a). There was no evidence of hypervascularization

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Fig. 1 Endometriosis involving the Bartholin gland. Ultrasound reveals an anechoic mass with well-defined margins, corpuscular content, and posterior shadowing (**a**) and no evidence of vascularization (**b**)

(Fig. 1b). The location of the lesion along with its clinical and sonographic characteristics was suggestive of endometriosis involvement of the Bartholin gland, and this diagnosis was confirmed by the post-operative histologic examination.

Discussion and Conclusions

Swelling of the Bartholin gland is a relatively frequent occurrence. It is generally caused by simple obstruction of the duct, but in rarer cases it is related to an abscess or the endometriosis.

Endometriosis is a common disorder that affects 1–7 % of the general female population, 21 % of those who are infertile, and 10 % of those between the ages of 30 and 40 years. It is characterized by the ectopic growth of endometrial tissue. The sites of involvement are generally within the pelvic cavity, but lesions can also develop in the abdomen or on the walls of other organs. Reports of vulvar and perineal endometriosis abound [3]. In 1987, Matseoane et al. published the first description of endometriosis involving the Bartholin gland [4], and this report was followed by numerous others [5].

In patients with swelling of the Bartholin gland, ultrasound findings can generally provide helpful diagnostic guidance and in many cases reveal the cause [6]. Swelling caused by retention, for example, is characterized by well-defined margins and relatively homogenous content; most abscesses appear as hypoechoic or anechoic lesions with irregular margins and perilesional vascularization [2]. Endometriosis is associated with well-defined margins and corpuscular content. Magnetic resonance imaging (MRI) is quite helpful in the diagnosis of endometriosis, especially in the presence of posterior extension and/or adhesions: it allows visualization of the cleavage planes and documents

the presence of hemosiderin within the lesion. MRI was not used in the present case because the patient suffered from claustrophobia, and the clinical diagnosis of endometriosis in the Bartholin gland was supported by the patient history (periodic swelling of the gland mainly during the menstrual cycle) and the ultrasound findings. As this case illustrates, the diagnosis is possible on the basis of these data alone although a definitive diagnosis can be made only after surgical excision of the lesion.

Conflict of interest Guido Robotti, Elena Canepari, Mario Torresi declare that they have no conflict of interest.

Informed consent All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (5). All subjects provided written informed consent to enrolment in the study and to the inclusion in this article of information that could potentially lead to their identification.

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