

A pouch in the cervix: a strange diagnosis

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Background

Anechoic cervical lesions are uncommon findings which may entail diagnostic and, therefore, management difficulties. Chronic cervicitis, bulky nabothian cysts, adenomyomas, niches (cesarean scar defects), congenital malformations, and pseudo-neoplastic glandular cervical lesions often raise diagnostic dilemmas; they may also mimic malignant lesions [1–4]. Other anechoic images worth considering are those produced by cystic changes after cervical trauma, lacerations, or extremely rare false passages resulting from cervical dilatation [5].

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Methods

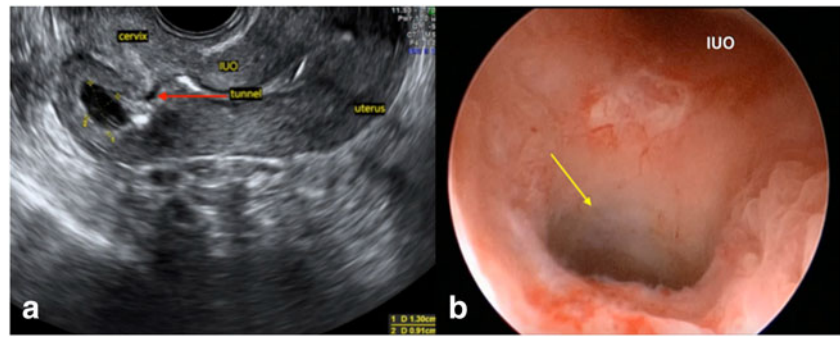
We report a unique case of a cyst in the posterior cervical wall, as a possible result of a dilation and curettage (D&C) procedure. We describe the clinical and instrumental aspects of the differential diagnosis. To the best of our knowledge, this is the first reported case identified and documented by hysteroscopy.

Findings

A 31-year-old woman, gravidity 1, parity 0, was referred to our gynecological unit for a consultation, due to abnormal uterine bleeding, which occurred 2 months after a D&C for an incomplete miscarriage performed using a sharp curette at another hospital. She reported no pelvic pain, dysmenorrhea, or dyspareunia. Her gynecological history was completely negative (except for the miscarriage and the subsequent D&C). Trans-vaginal ultrasonography revealed an anteverted uterus with a regular uterine corpus, but the most significant finding was a “pouch” within the posterior wall of the cervix, presenting as a well-circumscribed anechoic cystic cavity, devoid of any images of vegetation within. Moreover, a tubular hypoechoic image was also noted, appearing as a communicating passage between the endocervical canal and the posterior pouch (Fig. 1a). The patient had no recent ultrasonographic documentation, i.e., immediately prior to the D&C procedure, at her disposal, nonetheless, some older imaging results (15 months before the D&C) were available from a previous gynecological check-up (including ultrasonographic evaluation) that showed no uterine abnormalities (such as malformations or chronic cervicitis).

At this point, the diagnosis was still elusive, but was narrowed down to two hypotheses: either a rare case of adenomyotic cyst in the cervix or the unsuspected after-

Fig. 1 a, b At trans-vaginal ultrasound, the image of a regular uterus/isthmus and a cystic area in the posterior wall of the cervix are seen; the red arrow indicates the connecting tunnel between the cyst and the cervical lumen (a). The hysteroscopic view of cervical canal shows an abnormal hole in the posterior wall (b). IUO internal uterine orifice; yellow arrow entrance to the cervical cyst



effect of a “false path” during the cervical dilatation phase in the course of D&C. Ca 125 measurement was performed resulting in a value of 18 U/mL. At office hysteroscopic evaluation, a regular uterine cavity was visualized, with normal tubal ostia and regular isthmus. During the output phase, an abnormal hole in the posterior wall of the cervical tract was observed (Fig. 1b) and by accessing the inlet, we explored the cystic cavity via the scope. The internal walls of the cystic cavity appeared regular, with no vegetation or lesions. Some remnants of blood-admixed mucus were present in the pouch, but were washed out by the saline medium flow.

We performed a hysteroscopic biopsy of the cystic wall, and subsequent histological evaluation confirmed the specimen to consist of inflamed endocervical tissue. Finally, after adequate counseling, the patient was put on an estrogen-progestin pill (low-dose oral contraceptive), in order to relieve her AUB.

Discussion

Most of the data supported the hypothesis of a rare after-effect of an iatrogenic “false path.” Firstly, the presentation lacked pelvic pain, dysmenorrhea, or dyspareunia, which are typical symptoms of adenomyosis [6, 7]. Moreover, ovarian tumor marker Ca 125 result, which is commonly increased in cases of adenomyosis, was negative. Furthermore, the cervix is an unusual location for an adenomyotic cyst; it has generally been described as an intramural or cystic submucosal uterine mass, surrounded by myometrial tissue, with variable diameters [8]. Intramural or submucosal cystic adenomyosis is characteristically not connected to the endometrial cavity. In the present case, on the contrary, the cystic cavity directly communicated with the cervical lumen through a canal, as shown by the ultrasonographic and hysteroscopic exams [8]. In our opinion, these considerations and the history, together with the

ultrasonographic and hysteroscopic findings, strongly supported the “false path” hypothesis as the most convincing diagnosis. Accordingly, we opted for medical management of the symptoms (estrogen-progestin pill), based on the rationale that limiting menstrual flow would reduce the accumulation of menstrual residues within the cervical pouch, as well.

Clinical, sonographic, and hysteroscopic evaluations are all essential in the workup and differential diagnosis, so as to adequately assess this pathological condition. Taking into account the possible complications, such as the increased risk of ectopic cervical pregnancy, appropriate counseling of these patients is advised.

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