

## Uterine Cervix Cystic Enlargement

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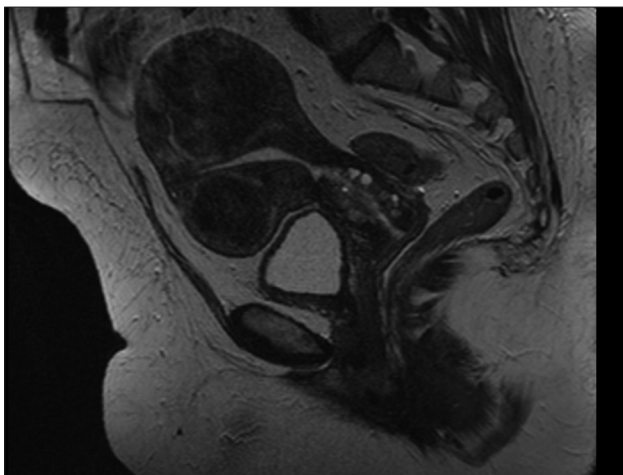
### SECTION 2 – ANSWER

#### Case description

A 54-year-old premenopausal woman was referred to the gynecology outpatient clinic due to abnormal uterine bleeding (AUB) and sonographic suspicion of adenomyosis and leiomyomas.

Pelvic magnetic resonance imaging revealed an uterus sized 155 mm × 104 mm × 90 mm with three nodules in the uterine wall suggestive of leiomyoma; the biggest sized 72 mm at the right portion of the fundus and an agglomerate of cystic formations at the uterine cervix with a total largest diameter of 50 mm [Figures 1 and 2].

The patient was submitted to total hysterectomy by laparotomy due to growing symptomatic leiomyomas. After removal of the specimen, the cervix was inspected – it was enlarged with multiple cystic lesions filled with mucous [Figures 3-5].

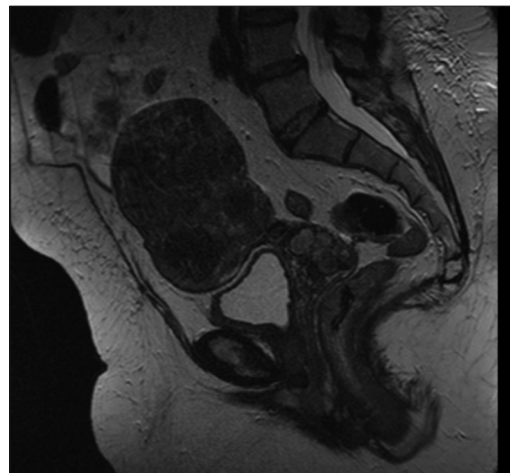


**Figure 1:** Pelvic magnetic resonance imaging – Sagittal view – Two nodules in the uterine wall suggestive of leiomyomas, thickening of the junction zone due to probable adenomyosis, and an agglomerate of cystic formations at the uterine cervix

#### Interpretation

This is a case of multiple uterine findings in a premenopausal woman with AUB and low-grade squamous intraepithelial lesion (LSIL) in cervical cytology.

As initial workup of AUB, ultrasound pelvic scan revealed findings suggestive of adenomyosis (the most probable cause of AUB) and leiomyomas International Federation of Gynecology and Obstetrics type 5, as well as a cervical big agglomerate of cysts with no vascularization. Pelvic magnetic resonance imaging (MRI) confirmed all the findings and showed a big multicystic mass at the uterine cervix with a maximum diameter of 50 mm. Due to LSIL in cervical cytology, nonsatisfactory colposcopy, and the nonreassuring imagiologic findings, a loop electrosurgical excision procedure was performed confirming LSIL. At the



**Figure 2:** Pelvic magnetic resonance imaging – Sagittal view – Uterus deformed by leiomyomas and agglomerate of cystic formations at the uterine cervix

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Received: 20-05-2019 Revised: 29-06-2019 Accepted: 02-07-2019 Available Online: 16-12-2019

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10.4103/JMU.JMU\_43\_19

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**How to cite this article:** Soares E, Freixo M, Coelho M, Costa F, Brandão P. Uterine cervix cystic enlargement. J Med Ultrasound 2020;28:200-2.



**Figure 3:** Surgical specimen – Enlarged cervix with multiple cystic lesions filled with mucous



**Figure 4:** Surgical specimen – Uterus deformed by multiple leiomyomas and an enlarged cervix with multiple cystic lesions filled with mucous



**Figure 5:** Surgical specimen – Uterus deformed by multiple leiomyomas

end, total hysterectomy was performed because of growing and symptomatic leiomyomas.

The main differential diagnoses in this case are cervical tunnel cluster, endocervicosis, or malignancy, namely the adenoma malignum.<sup>[1]</sup> As there was little enhancement in MRI, the possibility of malignancy was considered. Pathological examination revealed multiple cervical cysts filled with mucous with no atypia or malignancy, forming a big cervical cystic mass, consistent with the diagnosis of cervical tunnel cluster.<sup>[2]</sup>

Nabothian cysts are collections of mucous localized at the uterine cervix. They are highly prevalent, benign, usually asymptomatic, and require no treatment. Usually, they are small, appear in a small number, and are detected during pelvic examination or imagiologic procedures as anechoic cysts inside the cervical tissue. Cervical tunnel cluster is a disorder of the uterine cervix in which there are multiple nabothian cysts that may form a giant mass and thus resemble other uterine masses. There are 2 types of tunnel cluster, the type A (noncystic) and type B (cystic). These lesions are present in up to 8% of women. As long as malignancy is ruled out and the definitive diagnosis of tunnel cluster is established, these entities require no treatment or follow-up.<sup>[3,4]</sup>

Adenoma malignum, also known as minimal deviation adenocarcinoma, is a rare form of adenocarcinoma of the cervix that may appear as an anechoic uni- or multi-locular lesion, characterized by increased number of endocervical glands situated deep in the cervical stroma. Despite its appearance similar to a benign lesion, it may be highly aggressive.<sup>[5,6]</sup>

Like adenomyosis, endometriosis, and endosalpingiosis, endocervicosis is an embryonic Müllerian disease, in which organoid structures are misplaced during organogenesis. It is the rarest of the four Müllerian lesions, and it is characterized by pseudoneoplastic glandular lesions and an irregular arrangement of glands, often cystically dilated and occupying the cervical wall and extending to the paracervical tissue. The few cases reported until date refer to a large multilocular cystic cervical mass.<sup>[7]</sup>

The definitive diagnosis is only possible with histological examination. The preoperative imagiologic and histological study is important, though, to avoid both the misdiagnosis of malignancy and the overtreatment of a benign disease and its possible sequela.<sup>[8]</sup>

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

### Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

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