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# **CASUISTIC PAPER**

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# Bladder Mullerianosis – a case report

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### ABSTRACT

Introduction. Bladder mullerianosis is a rare and proliferative lesion that contains at least two types of ectopic Mullerian tissue in its wall.

Aim. To present case of bladder mullerianosis.

**Description of case.** The text contains a description of a clinical case of a 50-year-old woman admitted to a gynecological ward due to diarrheal symptoms and abdominal pain. In a CT examination of the abdominal cavity with contrast, within the posterior left-sided wall of the bladder a 43x25mm proliferative lesion suggestive of neoplastic character was revealed. Transurethral resection of the lesion (TURB) was performed. Histopathology revealed endosalpingiosis with small endocervical foci. The picture of hyperplasia met the criterion of mullerianosis.

**Conclusion.** Bladder Mullerianosis is a very rare disease that occurs mainly in women of reproductive age. It has very good prognosis. It is important to differentiate the lesion with malignant tumor. The basis for the diagnosis is the histopathological examination of the lesion tissues taken during the surgery.

Keywords. endocericosis, endosalpingiasis, mullerianosis, urinary bladder

## Introduction

Mullerianosis was first described by Young and Clement in 1996 as a rare unit consisting of the endometrium and mucous tissue of the fallopian tube or the cervical mucosa, occurring within the lamina propria mucosa or the muscularis proper to the bladder.<sup>1-5</sup> Mullerianosis is a mild growth occurring mainly in the posterior wall of the bladder, especially in women of childbearing age. Clinical symptoms include haematuria, pelvic pain and diarrheal symptoms.<sup>10-16</sup> From the clinical, cytological and histopathological point of view, this change is similar to tumor growth. A thorough clinical examination, imaging and histopathological examination allow for some differentiation of these hyperplasia.<sup>17-25</sup> Treatment consists of surgical removal of lesions, by transurethral resection (TURB) and, in some cases, homonaglama therapy.<sup>26-33</sup>

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A 50-year-old woman was admitted to the clinical urology department with diarrheal symptoms and abdominal pain, which initially suggested pyelonephritis. During the distant time, the patient underwent supra-hysterectomy. Urinalysis and urine sediment analysis showed inflammatory changes with the presence of bacteriuria and leucocyturia. In addition, the results of laboratory tests were normal. In computed tomography of the abdominal cavity and pelvis with contrast, a pathological size of 43x25mm was diagnosed within the posterior left-sided wall of the urinary bladder. In the left kidney cup, a 3-mm-thick deposit was revealed, and in the pancreas the focal widened Wirsung cable. In addition, abdominal and pelvic organs without pathological features.

Undergoing general anesthesia, transurethral resection of the bladder was performed. Post-secretion material in the form of numerous tissue fragments was fixed in buffered formalin and tissue and H+E staining was performed. In the microscopic examination, endosalpingiosis was diagnosed with the presence of small endocervikosis foci. The image corresponded to mullerianozie. The image showed fragments of the wall of the urinary bladder covered with mucosa with features of edema. Within it and in the musculature, small, partially cystic glands with lining of the serous type of the fallopian tube and glandular cervix were present, which did not show signs of tumor atypia (Fig. 1).

After about 6 weeks, the patient re-visited the doctor because of abdominal pain. In the ultrasound examination, changes of the infiltrating form in the same region of the bladder were again diagnosed. The TURB procedure was resumed. In the histopathological examination mullerianosis was again diagnosed. After about 8 weeks after the procedure in the performed magnetic resonance imaging (MRI), in the place after previous surgery, an image suggesting the recurrent nature of the lesions was visualized. In addition, no other pathological changes were observed in the urinary bladder and adjacent organs.

### Discussion

Mullerianosis was first described by Young and Clement in 1996 as a rare unit consisting of the endometrium and mucous tissue of the fallopian tube or the cervical mucosa, occurring within the lamina propria mucosa or muscularis proper bladder.<sup>1-5</sup> Unlike endometriosis, mulleriasis occurs in the organ, not on the surface of the organ. Other mullerianosis sites are: inguinal lymphatic tubules, ureter, mesosalpinx.1 There are many theories about the pathogenesis of this disease. Theory of implantation, when the changes precede the surgery and the metaplasia theory, when the changes occur in people without a previous operation. There is a suggestion that the Mullerian system, which during the development creates the mesothelial mesothelioma, has the ability to differentiate into the epithelium of the fallopian tube, cervix and endometrium.6 Mullerianosis is a pseudocancer change. The differential diagnosis should include benign and malignant bladder cancer. Clinical symptoms, imaging results, and cytological examination of urine play a role in the diagnosis. The key to the diagnosis is the histopathological examination of change



Fig. 1. Bladder Mullerianosis (Staining H+E, area 4X. Own material)

tissues taken during surgery (TURB), which is also an option for the treatment of change.<sup>33-35</sup> The second option is conservative treatment with hormone therapy using the LH-RH agonist.<sup>8-16</sup>

#### Conclussion

Bladder Mullerianosis is a very rare disease that occurs mainly in women of reproductive age. It has very good prognosis. It is important to differentiate the lesion with malignant tumor. The basis for the diagnosis is the histopathological examination of the lesion tissues taken during the surgery.

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