

# Degeneration of the symphysis pubis presenting as a submucosal urinary bladder tumour

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## Abstract

Urinary bladder sonography is a sensitive diagnostic technique used for visualizing urinary bladder tumours. The aim of our communication is to present a case of a pseudotumour of the urinary bladder originating from the symphysis pubis syndesmosis. A 58-year-old woman was seen by a urologist with symptoms of lower urinary tract infection. Urinary bladder sonography was performed, followed by magnetic resonance imaging. Sonographic images of the bladder showed an exophytic mass on the urinary bladder's anterior wall. A transurethral resection of the tumour was performed. A histopathological examination revealed a necrotic extramural mass, without traits of malignancy. The mass reappeared in the follow-up vesical sonography. Subsequently, its transurethral resection was repeated with the same histopathological findings. The next urinary bladder sonography revealed the presence of the mass again. Pelvic magnetic resonance imaging was performed, which showed advanced degenerative changes in the pubic symphysis syndesmosis that protruded into the bladder, imitating a urinary bladder tumour. To avoid unnecessary surgery, both radiologists and urologists should be made aware that there is a possibility of similar cases in patients. Magnetic resonance imaging enabled correct determination of the primary site of the growth, which, together with the histopathological examination results, influenced the choice of the implemented therapeutic procedures.

**Key words:** urinary bladder, ultrasound, magnetic resonance imaging, transurethral resection of the bladder tumour.

## Introduction

Urinary bladder sonography is a very sensitive diagnostic technique used for visualizing urinary bladder tumours, including the most common type of bladder cancer, urothelial carcinoma (transitional cell carcinoma). The most common symptom of the latter is painless gross haematuria; however, it is also possible that only infection symptoms or only urination disorders (such as frequent urination, urinary

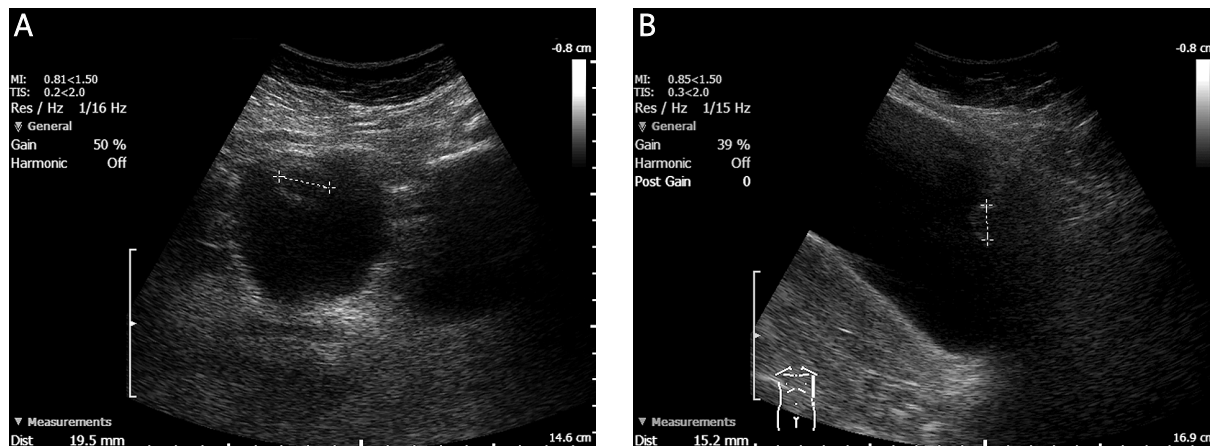
urgency, and/or dysuria) suggest the possibility of urothelial carcinoma [1].

## Case report

A 58-year-old woman was referred to a urologist with a lower urinary tract infection. Physical examination, laboratory tests, and abdominal sonography of the upper urinary tract were unremarkable. Vesical sonography showed an exophytic mass on the blad-

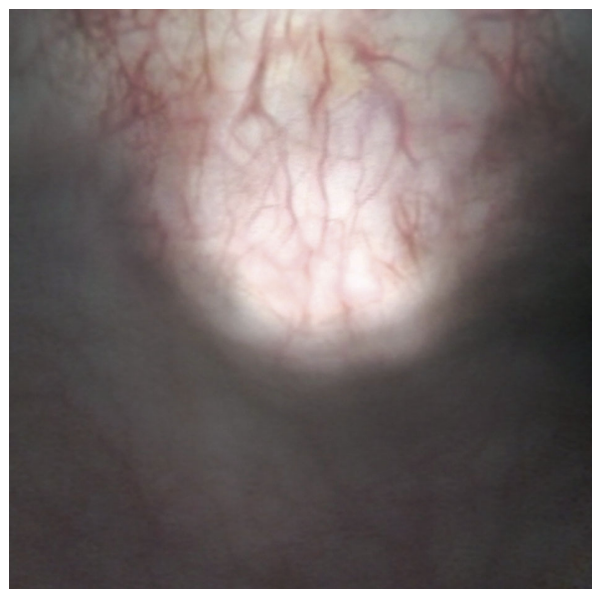
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**Figure 1.** On ultrasonography, an exophytic, hypoechoic lesion, measuring 19 mm × 15 mm, located on the anterior-superior wall of the urinary bladder, as seen on the transverse (A) and longitudinal views (B)

der’s anterior wall (Figure 1 A-B). Urine cytology and intravenous pyelography were normal. Cystoscopy revealed a prominence of the bladder wall covered by normal mucosa (Figure 2). The lesion sample was removed through transurethral resection of the tumour (TUR). Histopathological examination showed necrotic masses filled with fibrin without traits of inflammatory infiltrate or neoplastic cells. A follow-up ultrasonography performed 3 weeks after TUR



**Figure 2.** Cystoscopy showing a prominence of the bladder wall, very similar to that caused by the uterus, covered by normal mucosa, soft and elastic in the course of the procedure

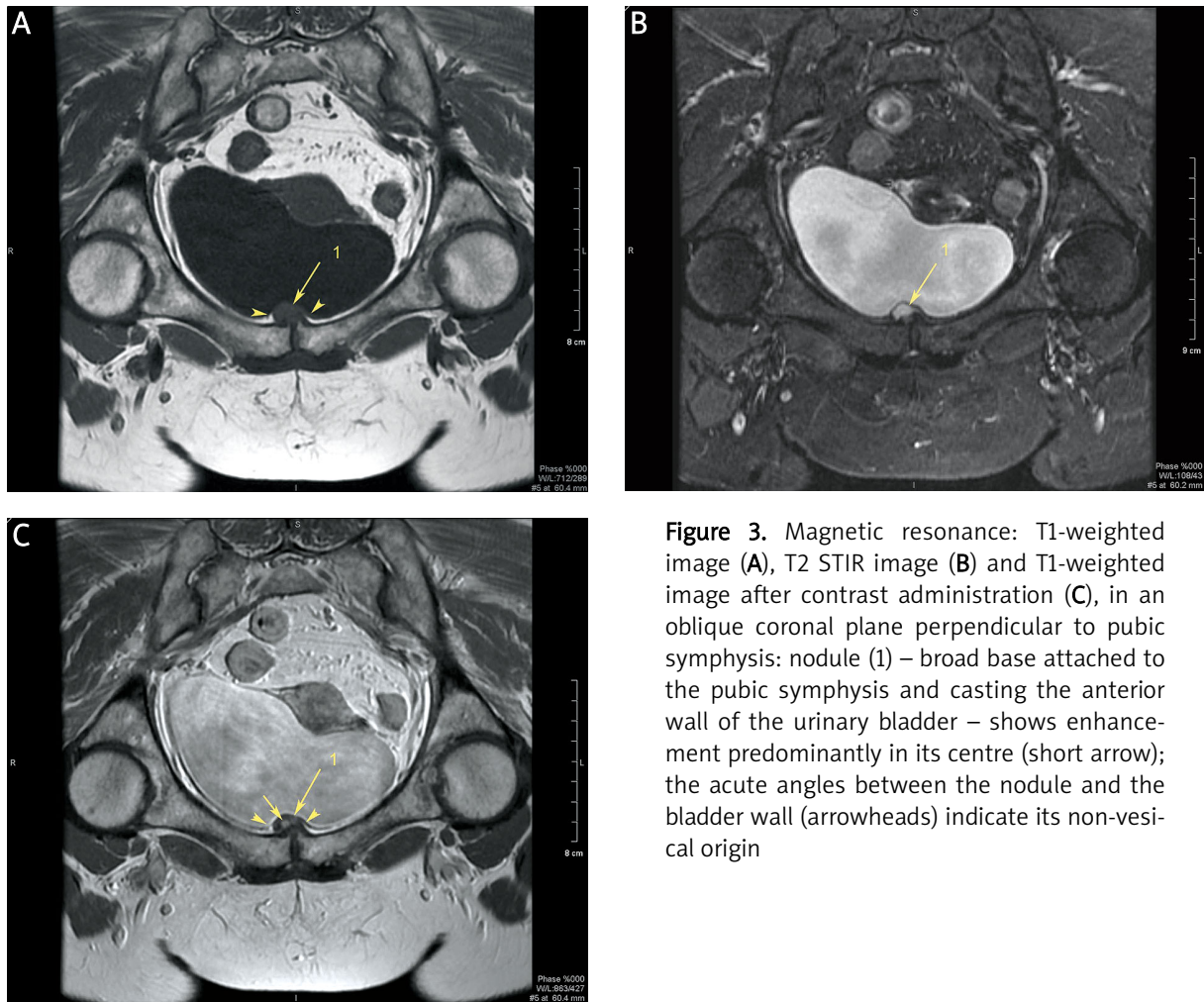
revealed a mass in the same location as the previously resected structure. Assuming that the procedure had not been radical enough, TUR was repeated. Yet, 2 weeks later, a similarly located lesion was again visible on ultrasonography. Subsequently, magnetic resonance imaging (MRI) of the pelvis was performed, showing advanced degenerative changes of the pubic symphysis with a connective tissue that cast the anterior wall of the urinary bladder (Figure 3 A-C).

## Discussion

A review of the available literature shows this case to be the first report of a pseudotumour of the bladder ensuing from advanced degenerative changes of the pubic symphysis.

Cystoscopy revealed a submucosal anomaly; therefore, in the further diagnostic process it was possible to confine the differentiation to, sporadically described, intramural bladder tumours, most importantly to leiomyoma, their most common type [2-4]. Among other, rarely described submucosal urinary bladder tumours, there are both benign [5-12] and malignant types of tumours [13-15]. Histopathological examination of the sample is critical for the correct identification of the tumour type and for determining its character.

In the herein discussed case, as a consequence of the extraordinary results of the follow-up post-TUR sonography, which again showed the presence of a urinary bladder tumour, pelvic MRI was performed, exposing the degenerative changes in the pubic symphysis, which cast the anterior wall of the bladder.



**Figure 3.** Magnetic resonance: T1-weighted image (A), T2 STIR image (B) and T1-weighted image after contrast administration (C), in an oblique coronal plane perpendicular to pubic symphysis: nodule (1) – broad base attached to the pubic symphysis and casting the anterior wall of the urinary bladder – shows enhancement predominantly in its centre (short arrow); the acute angles between the nodule and the bladder wall (arrowheads) indicate its non-vesical origin

A review of the literature suggests that this is the first described case of such an advanced degenerative process in the pubic symphysis, which in a tumour-like form protruded into the bladder. The case required histopathological differentiation with other individual cases of tumour-like lesions originating from the pubic symphysis. Endoscopic diagnosis may be insufficient in this regard in some selected patients [16-19].

In this case, owing to MRI scans, the original site of the lesion was correctly determined, which, together with the histopathological examination findings, allowed for the change in the planned therapeutic proceedings. Both radiologists and urologists should be made aware that there is a possibility of similar cases in patients to avoid unnecessary surgery.

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