

¿Otra infección urinaria o algo más? Another Urinary Tract Infection or something more?

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ABSTRACT

Urinary tract infection (UTI) affects mostly women. Any condition that allows stasis or urinary obstruction predisposes to the development of UTI.

The authors report the case of a 37-year-old woman with a recurrent UTI who presented with right lumbar pain irradiating to homolateral inguinal region and genito-urinary symptoms, and a pelvic extensive lesion was shown in the abdominal-pelvic CT in apparent relationship with L5 nerve root compatible with a Schwannoma.

Schwannomas are usually benign tumors that rarely present malignant transformation. Repetitive UTIs may be a consequence of the mass effect or of neurological cause secondary to intraspinal schwannomas that cause urinary retention. Local recurrence or malignant change is possible, so complete tumor resection is important.

Palabras clave: infección del tracto urinario, incidentaloma, schwannoma.

Keywords: urinary tract infection, incidentaloma, schwannoma.

INTRODUCTION

Urinary tract infection (UTI) mostly affects females. Between 20-30% of women with an episode of UTI will have a recurrent episode¹. The risk factors independently associated with recurrent UTI's in premenopausal women are frequent sexual intercourse, spermicide use, new sexual partner, first episode of cystitis before age 15 and maternal history of UTI¹. It is the relationship between host, pathogen and environmental factors that determines the clinical outcome. Any condition that allows urinary stasis or obstruction predisposes to the development of UTI.

The authors report the case of a 37-year-old woman with a history of recurrent UTI who presented with right lower back pain with irradiation to the homolateral inguinal region and genitourinary symptoms. An apparent pelvic extensive left lesion was seen on abdominal-pelvic CT in apparent relationship with L5 nerve root, compatible with a Schwannoma.

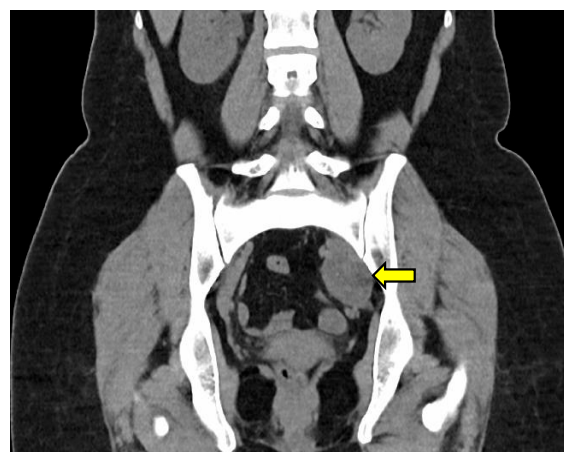
CLINICAL CASE

A 37-year-old female, leukodermic, autonomous in daily life, with a history of recurrent UTI (3 episodes per year), the last one 2 months ago, was admitted to emergency department for constant right back pain with irradiation to the right inguinal region, with 15h of evolution, intensity 8/10 without factors of relief or aggravation, polyuria, vesical tenesmus and urinary urgency.

Upon observation, she presented with pain in the right iliac fossa, without peritoneal reaction, absent renal Murphy. Analytically, she had leukocytosis $15.5 \times 10^3 \mu\text{L}$ with neutrophilia, C-reactive protein 5.6mg / dL. Urinalysis: Leucocytes 4+, nitrites +, blood 2+, proteins 1+.

Abdominal-pelvic CT scan (Fig. 1) showed: left pelvic extensive lesion at least 5x3cm in apparent relationship with L5 nerve root (schwannoma?), without bilateral hydronephrosis, requiring better characterization by MRI (magnetic resonance

Fig. 1. Abdominal-pelvic CT - Left pelvic extensive lesion (arrow) at least 5x3cm in apparent relationship to L5 nerve root (schwannoma?), without bilateral hydronephrosis.



imaging). Given this result, the patient was admitted to the hospital for etiological study of the imaging finding.

During hospitalization, she underwent lumbar and sacral MRI (Fig. 2), which confirmed the existence of an extensive lesion originating in the left L5 root foramen segment, extraforaminal and homolateral pelvic extension, fusiform, 77x38x38 mm, hypo/isointense in T1, heterogeneous in T2, with multiple areas of cystic nature, compatible with bulky schwannoma with extradural extension, causing deviation of the left ovary. Smaller lesion with the same signal characteristics involving S1.

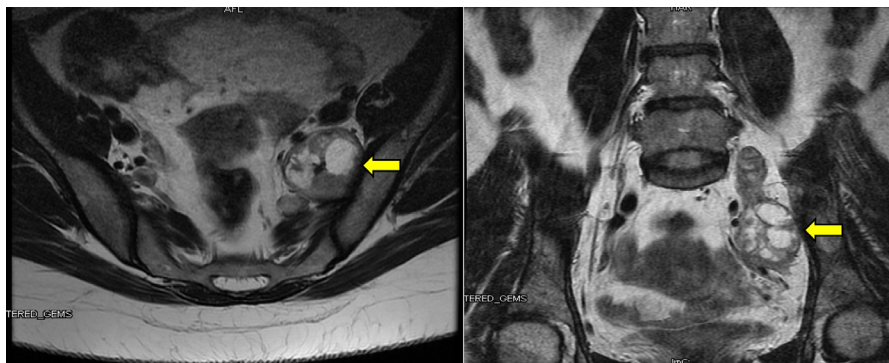
She was discharged oriented to Neurosurgery and Internal Medicine consultation. The surgeons have decided to take a "wait and see" attitude because there were no symptoms that warranted surgical intervention.

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Fig. 2. Lumbar and sacral MRI - Extensive lesion (arrows) originating in the foraminal segment of the left L5 root compatible with bulky schwannoma with extradural extension.



DISCUSSION AND CONCLUSION

Schwannomas are encapsulated solid tumors of Schwann cells and often occur isolated or as multiple tumors in the context of genetic diseases². They are usually benign with rare malignant transformation and are found in the head, neck, posterior mediastinum and extremities³.

The incidence of spinal Schwannomas, also called neuromas, ranges from 3-4 cases/1,000,000 people annually⁴. There is no difference in prevalence between males and females, and it affects people mainly between 40-50 years old⁴.

The cervical and lumbar regions are the most affected, however several clinical cases showed that most schwannomas were located in the lumbosacral region most frequently between L4-L5. In the literature, 15% of intraspinal schwannomas extend through an opening of the dura and present as a mass with an intradural and extradural component².

Schwannomas which have a slow growing may be asymptomatic for months or years after their onset. The presence of symptoms depends on the location and size of the tumor and may range from radicular pain, loss of muscle strength or sensitivity and incontinence.

In most cases the reason for the appearance of this type of tumors is unknown. They are sometimes linked to genetic diseases such as neurofibromatosis, schwannomatosis or Carney complex syndrome⁵.

Schwannomas can be difficult to diagnose since symptoms may resemble those caused by other diseases. In the reported case, it was initially thought to be acute renal colic due to the clinical presentation, so the tumor found after radiological examination became an incidentaloma. The patient's urinary symptoms could be due either to tumor compression and/or to venous congestion or ischemia. Some authors report that urinary or fecal incontinence rate reaches 5% in patients with spinal schwannoma⁶. In these cases, urodynamic test is mandatory⁶. The preferred exam is MRI, which determines whether the tumor is located outside the nerve or affects the nerve and involves surrounding structures. Tumor biopsy is confirmatory.

Treatment depends on the location of the tumor, the severity of the symptoms and its benign or malignant nature. Usually, patients undergo total surgical resection of the tumor. There are sometimes obstacles that make complete removal impossible, such as adherence to the spinal cord at risk of bleeding or inflammation or adherence to extradural structures. In these cases,

radiotherapy is mandatory, but the risk-benefit of its use should always be judged, particularly in women of reproductive age⁷.

Apparently, an improvement of urinary symptomatology is rare after tumor excision⁶. In cases such as this described here, a postoperative rehabilitation program is necessary, and a urodynamic test after the surgical intervention may be beneficial for comparison with the previous test. The prognosis correlates with the preoperative neurological condition. Normally complete resection of the tumor is curative and if this is not possible, tumor recurrence is likely⁴.

The reported case is relevant since clinicians facing recurrence of urinary tract infections should be aware of factors contributing to their occurrence, such as: frequent sexual intercourse, spermicide use, new sexual partner, first episode of cystitis before age 15, maternal history of UTI as well as anatomical factors such as kidney stones, urinary tract malformations, tumor mass compression or neurological injury¹.

Schwannomas are usually benign tumors that rarely show malignant transformation. It may appear on the head, neck, posterior mediastinum, spine and extremities. Repetitive UTI's in these cases may be a consequence of the mass effect or of neurological cause like intraspinal schwannomas causing urinary retention. Local recurrence or malignant transformation is possible, so complete resection of the tumor is important.

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