Calcified Uterine Myoma: An Infrequent Radiologic Finding

Mioma Calcificado: Um Achado Radiológico Raro

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A 72-year-old woman, incapable of carrying out normal daily activities, with multiple co-morbidities including history of recurrent urinary tract infections, is brought to the Emergency Room for altered state of consciousness, oliguria and food refusal. At physical examination she presented a Glasgow Coma Scale of 9, hypotension (blood pressure 80/42 mmHg), tachycardia (heart rate 137 beats per minute), and a stiff, painless, palpable mass in the hypogastrium. Blood tests showed hyperlactatemia, elevated inflammatory parameters (leucocytes 26150 per mm3, 94% neutrophils; C-reactive protein 26.97 mg/dL), renal dysfunction (urea 178 mg/dL, creatinine 3.23 mg/dL) and a pathologic urine sediment with leukocyturia and nitrituria. The diagnosis of urosepsis was made and she was given intravenous antibiotic with ceftriaxone 1 g after collecting urine and blood cultures. Once ultrasound (US) was not available at the moment, an abdominal radiogram was performed to rule out foreign bodies, exhibiting a radio-opaque, rounded image in the pelvis, with a popcorn calcification pattern (Fig. 1), later proven to be a calcified myoma already documented in a previous uterine US. A *proteus mirabilis* was isolated in both urine and blood cultures, exhibiting an antibiogram with susceptibility to cephalosporins. Despite the early initiation of

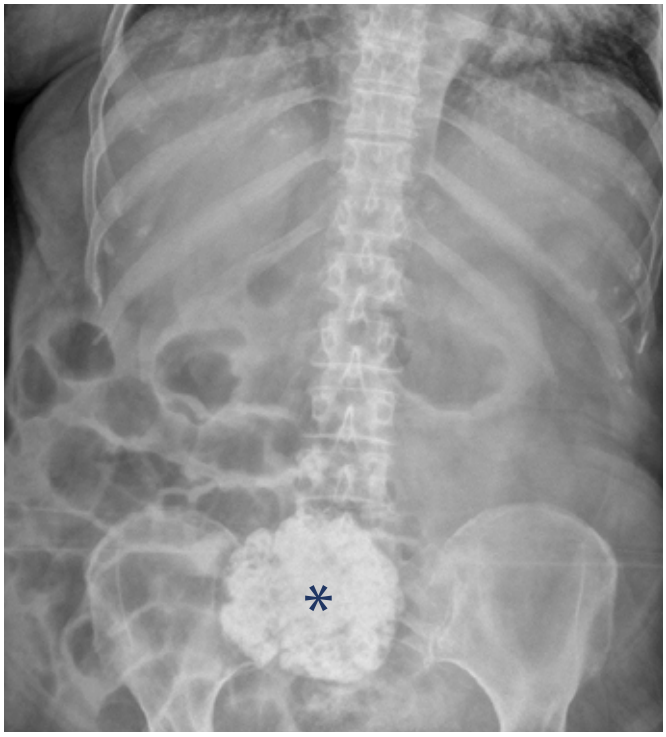

Figure 1. A rounded border pelvic mass with dense and amorphous calcifications highly suggestive of uterine leiomyoma.

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treatment, the patient showed signs of clinical deterioration, with multiorgan dysfunction, dying in the following day.

The differential diagnosis of calcified pelvic masses includes a large variety of benign and malignant entities such as calcified aneurysms, bladder stones, dystrophic calcification of soft tissues following hemorrhage or inflammation, lithopedia, foreign bodies, and calcified neoplasms.[1] Ultrasonography is the first-line imaging examination for pelvic masses with high sensitivity and specificity for uterine myomas.[2] Computer tomography and magnetic resonance can be helpful in patients in whom ultrasound findings are unclear.[2] Usually performed for other reasons, plain radiograph can show a popcorn pattern that, even though it is not a pathognomonic sign, when present, highly suggests the diagnosis of uterine leiomyomas.[3]

Leiomyomas (or fibroids) are benign tumors of smooth muscle origin, with varying amounts of fibrous connective tissue.[4] They are the most common solid pelvic tumors in women, often asymptomatic and incidentally diagnosed when performing imaging for other reasons. Through aging, fibroids may greatly enlarge, with a benign, non-infiltrative pattern of growth, and might compress surrounding organs such as the bladder, which can lead to urinary retention and infection. Rarely, due to this mass effect, patients may present with hydronephrosis or bowel obstruction.[4] Calcification tends to occur following necrosis when fibroids outgrow their blood supply.[5] Surgical treatment should be considered when symptomatic.

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