

## Unfamiliar Large Soft Tissue Sarcoma in A 70-Year-Old Lady

Received: July 22, 2017 Accepted: August 21, 2017  
doi: <http://dx.doi.org/10.3329/jemc.v7i3.34079>



Fig 1. Scout coronal and sagittal image shows large neoplastic pre- and left paravertebral soft tissue mass with adjacent bone involvement

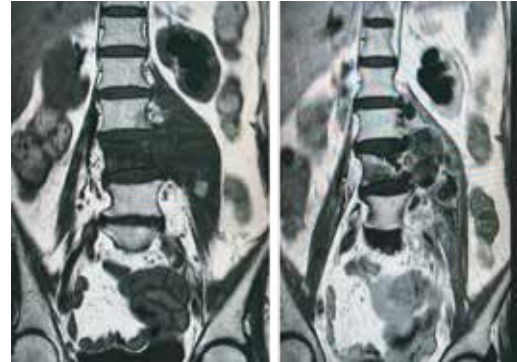


Fig 2. Pre- and post-contrast T1W coronal images shows heterogenous enhancement of soft tissue mass involving left psoas muscle

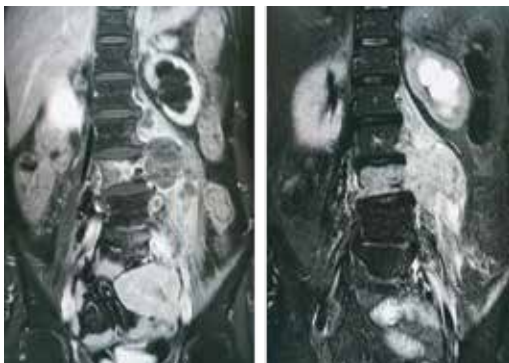


Fig 3. STIR and post contrast STIR coronal images shows the soft tissue mass compress over ureter causing left sided hydronephrosis



Fig 4. T2W and STIR sagittal image showing prevertebral soft tissue mass extending from L1 to L2 vertebra with altered signal intensity at body of L1, L2, L3 and posterior elements of L3



Fig 5. Post-contrast T1W and STIR axial images shows heterogenous soft tissue mass extending into left neural foramina at L2-L3 and L3-L4 with compression of exiting nerve root. The mass also extends into spinal canal.

A 70-year-old woman attended the department of Radiology & Imaging in Enam Medical College Hospital for MRI of lumbo-sacral spine with the history of low back pain that radiates to left lower limb for the last 6 months. MRI revealed a fairly large heterogeneous soft tissue mass of about 12.1×11.5 cm in prevertebral and left paravertebral regions involving left psoas muscle and extending from L1–L2 vertebrae. The mass extended into left neural foramina at the level of L2–L3 and L3–L4 with compression of exiting nerve root of these levels. It also extended into the spinal canal causing thecal sac indentation at the level of L3 vertebra. Signal change areas were noted involving the body of L1, L2, L3 and posterior element of L3 vertebra. After I/V contrast, heterogeneous enhancement of the soft tissue mass was noted. Besides, pelvicalyceal system of left kidney and visible part of ureter were moderately dilated due to compression of the mass. This mass was diagnosed as soft tissue sarcoma (STS). Differential diagnoses included psoas abscess and metastases.

Soft-tissue sarcomas are a heterogeneous group of malignant tumours of mesenchymal origin that originates from the soft tissues rather than bone. They are classified on the basis of tissue seen on histology.<sup>1</sup> They account for less than 1% of all human tumors. Their biological behavior is characterized by local aggressiveness and tendency to hematogenous spreading. Almost 50% of STS patients develop metastatic disease, mainly within three years from initial diagnosis. The distribution of metastases from STS varies, depending on the primary site and histological subtype. For example, those arising from the extremities mainly spread to the lungs, and those arising from the abdominal cavity, usually metastasize to liver and peritoneum.<sup>2</sup> Even if no extensive data are currently available on the skeletal involvement in STS patients, the daily clinical practice suggests that the development of bone metastases causes pathological fracture, hypercalcemia and spinal cord compression.<sup>3</sup> The most common types of sarcoma in adults are

undifferentiated pleomorphic sarcoma and bone metastases occur in almost 10% cases. Radiologically, bone metastases from STS are described as lytic in more than 80% of cases and the detection of a pathological fracture by radiography is not an uncommon finding. Diagnosis is confirmed by MRI features and biopsy (incisional biopsy, core biopsy or excisional biopsy).<sup>4</sup> The main types of treatment for soft tissue sarcoma are surgery, radiotherapy, chemotherapy and targeted therapy. Patients survive for a median of six months after diagnosis of bony involvement.<sup>5</sup>

#### **Tarana Yasmin**

Associate Professor  
Department of Radiology & Imaging  
Enam Medical College & Hospital, Savar, Dhaka

#### **Mashah Binte Amin**

Assistant Professor  
Department of Radiology & Imaging  
Enam Medical College & Hospital, Savar, Dhaka

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