

A Case Report of Small Round Cell Tumour in Paraspinal Region in HIV

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1. Introduction

Small round cell tumours are a group of cytomorphologically similar neoplasms with varied origin. The neoplastic elements include undifferentiated, uniform, small round to oval closely packed cells with a solitary hyperchromatic nucleus and a high nuclear cytoplasmic ratio. They tend to involve skeletal system or soft tissue. This is a case of small round cell tumour in a HIV patient who is on Antiretroviral therapy.

2. Case History and Examination

A 44-year-old female presented with root pain radiating to both the lower limbs since 60 days, asymmetrical weakness of bilateral lower limbs since 25 days, left lower limb > right lower limb with sensory disturbances in the form of tingling and numbness since 20 days and no involvement of bilateral upper limbs. No history suggestive of bowel or bladder dysfunction. She is diagnosed with HIV since 1 year and is on tenofovir, Lamivudine, Atazanavir/ritonavir and cotrimoxazole. On examination, Pulse-88 beats per minute, BP-120/80 mm Hg

CNS-Higher mental functions-Normal. Cranial nerves-Normal. Hypotonia in bilateral lower limbs, power 2/5 in left lower limb and 3/5 in right lower limb. Superficial reflexes-abdominal reflex present bilaterally, plantar is equivocal in left lower limb and flexor in right lower limb.

DTRs-absent in bilateral lower limbs, upper limb DTRs normal.

Sensory-Vibration and joint position impaired in left lower limb up to level of ankle compared to right lower limb.

Spine-Tenderness observed at the L4 vertebral level

CVS-S1, S2+

RS-B/L NVBS+

P/A-soft, non-tender, no organomegaly

At this point, we thought of differential diagnosis of HIV myelopathy or CNS Lymphoma or metastatic lesion to spine along with HIV neuropathy.

Investigations:

CBC, Coagulation profile, RFT, LFT, Thyroid profile, Serum electrolytes, RBS-normal

CD4 count-525 cells

Creatinine Kinase-59 U/L

CXR PA-normal

X-Ray pelvis-normal

Nerve conduction studies-Severe subacute neuropathy of the lower limb nerves.

MRI LS Spine-III defined heterogeneously enhancing soft tissue lesion in spinal canal at L4 to S1 level causing clumping of nerve roots, extending into left paravertebral, posterior paraspinal regions eroding left transverse process and body of L5-likely inflammatory pseudotumor; suggest biopsy.

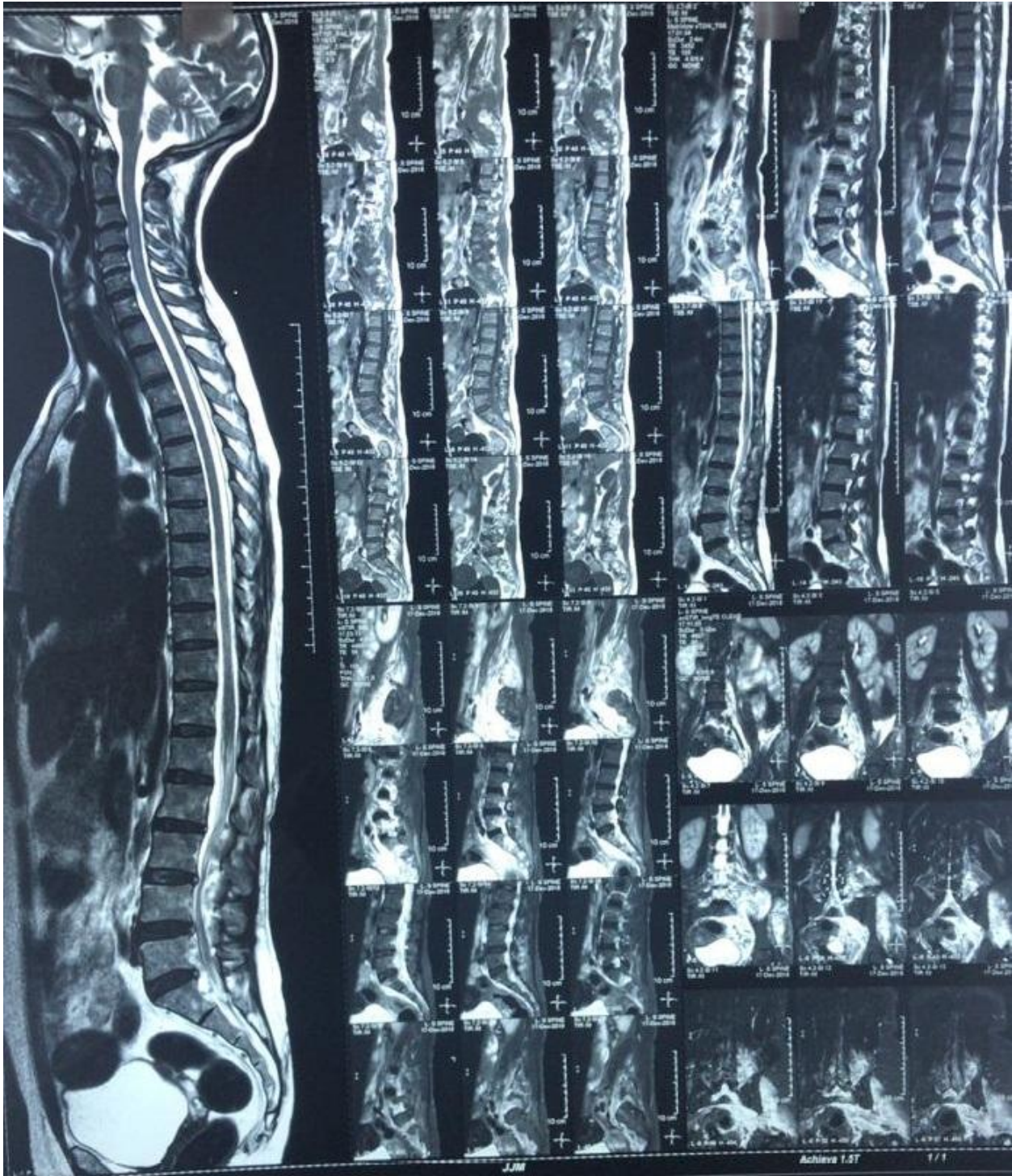


Figure 1: MRI LS Spine with whole spine screening-Sagittal Section

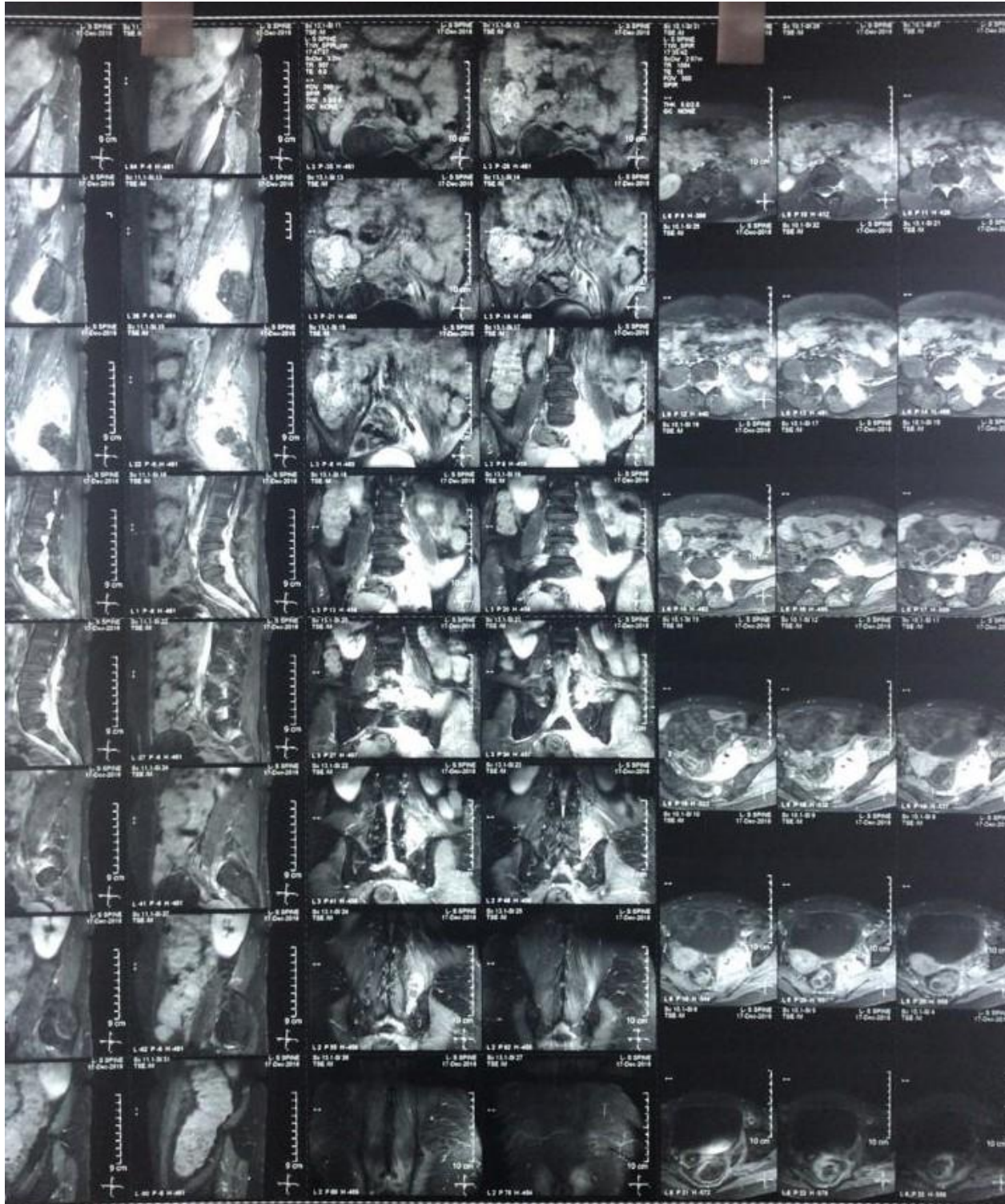


Figure 3: MRI LS Spine

FNAC Paraspinal region: Section shows neoplastic lesion arranged in diffuse sheet. Cells are round with high hyperchromatic nucleus and scanty neoplasm. Good number of mitotic figures seen, focal lymphovascular invasion seen s/o malignant round cell tumor.

Management

Patient was treated symptomatically with pregabalin, nortriptyline, methylcobalamine, physiotherapy. She was referred to higher centre for immunohistochemistry and radiotherapy.

3. Discussion

Small round cell tumours are malignant neoplasms of heterogeneous variety. They differ from each other with respect to site of occurrence and variety. It consists of primitive cells without differentiation neoplasms. It commonly occurs in young children and adolescent age group. They have high nuclear cytoplasmic ratio with hyperchromatic nucleus. They require immunohistochemistry molecular genetics and flow cytometry for differential diagnosis. It often involves skeletal and soft tissues. There are very few cases have been

reported to have an association with HIV. The unusual location and presentation in an adult makes us understand an atypical variant of this case. So, all patients with HIV need a detailed evaluation to look for the details of tumor for appropriate treatment and diagnosis.

References

- [1] Small Round Cell Tumor of the Head and Neck Region: A Review; Reshma V et al; International Journal of Oral & Maxillofacial Pathology. 2013;4(2):24-33