Case report

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Solitary Fibrous Tumor of the Paraspinal Region: A Case Report

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Solitary fibrous tumor (SFT) is a rare neoplasm occurring in the central nervous system. It rarely occurs in the spine. SFTs represent a wide range of neoplasms, ranging from benign tomalignant. This case reports on a 51 year- old male with localized solitary fibrous tumor on left para spinal region which was observed by MagneticResonace Imaging. Patient complained a low back pain radiating to left lower limb for successive 10 days. Laboratory investigation such as CBC and renal function test was normal. A Confirmation of patients Solitary fibrous tumor (SFT) was done on the basis of surgical, radiological, histological and immunohistochemical findings.

Keywords:- solitary fibrous tumor,paraspinal region, tumor, case report

Solitary fibrous tumors (SFTs), previously grouped together with hemangiopericytomas, are rare soft-tissue tumors mostly occurring in the thoracic region but can arise anywhere in the body.[1, 2] Spinal SFTs are a rare entity with the most common location being thoracic spine followed by cervical and lastly lumbosacral spine. [3,4]SFT is seen in patient with a different age group ranging from 27-78 years; median age, 52 years.[5] It is more common in male patient as compared to female. Most tumors present as a slow-growing painless mass with a duration ranging from 2 months to 5 years. Computed tomographic and/or magnetic resonance imaging scans shows well-circumscribed tumors that enhanced strongly with contrast. Treatment of all the patients is surgical resection. Pathologic finding shows most tumors as benign however it can be malignant. All patients are alive at a median follow-up of 8 months (range, 1-76 months). Local recurrence occurs in patient with positive surgical margins after the initial surgery.

Case Report:

A 51 years old male, with no significant medical history of HTN, DM, PTB or other comorbidities, had a low back pain radiating to left lower limb for successive 10 days. On the neurological examination,normal motor functions of both upper and lower limbs werefound. He only had diminution of proprioception in distal left lower limb on S1 dermatome. He had normal osteotendinous reflexes, normal anal sensation, and bilateral absence of Babinski sign.However dorasalispedis pulsation was intact. He also noted a limitation of his walking distance without any motor symptom or neurologic claudication.X-ray did not show any abnormality. A MRI showed a hyperintense lesion of the lumbar spine on T1 weighted images on the posterior aspect of the L3-L4 disc. The lesion was hypointense on T2 weighted images. It showed contrast uptake with gadolinium injection **(Figure 1)**. A Left Transverse incision over left lumbar region given and gross total excision of solitary mass was done. Solitary tumor mass of 5x5x4cm encapsulated, firm mass in consistency, white in color, lying over paraspinal exiting nerve root over L3-L5.Microscopic examination of biopsy tissue after the Hematolxylin and Esoin staining showed comprised of collagenous matrix with arrays of haphazardly arranged, uniform elongated spindle cell. Nucleus of tumor cells showed a pleomorphism. Tumors cell were scored for mitotic activity, cellularity, nuclear plemorphism, necrosis and the presence of a malignant component which was considered as low grade malignant mesenchymaltumour and further immuno-histochemical examination was considered which showed strong and

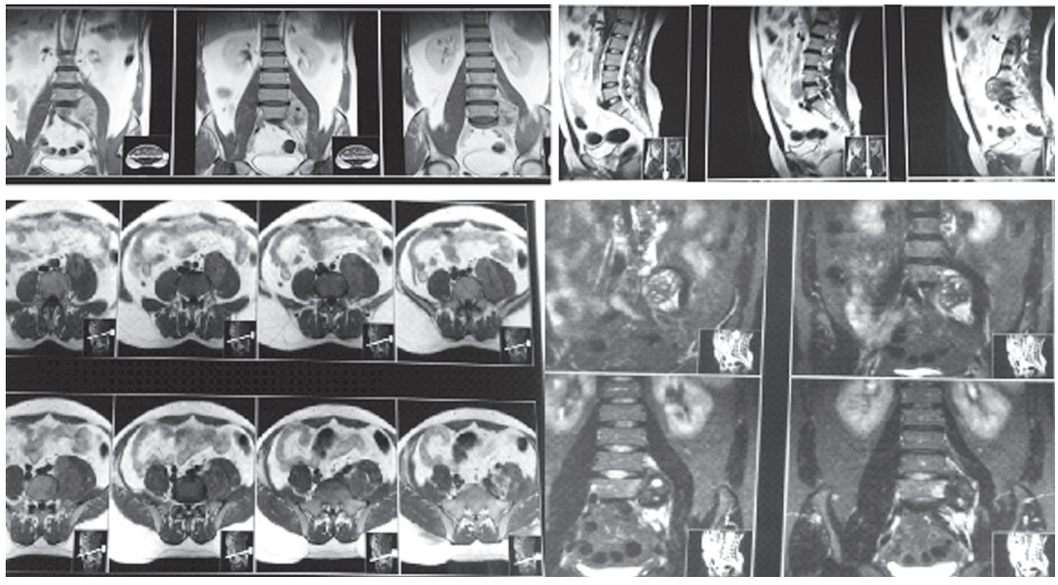

Fig.1 MRI on sagittal, axial, coronal showed a hyperintense lesion of the lumbar spine on T1 weighted images on the posterior aspect of the L3-L4 disc. The lesion is hypointense on T2 weighted images. It showed contrast uptake with gadolinium injection.

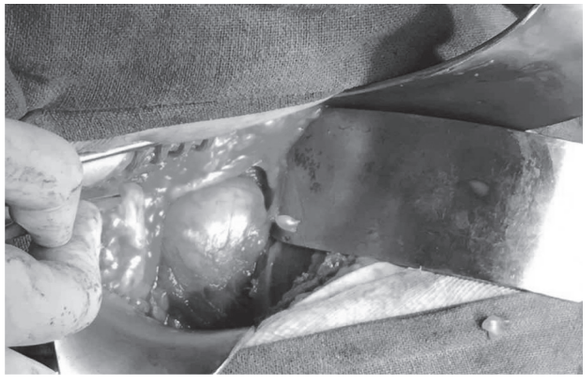

Fig. 2 A Left Transverse incision over left lumbar region and gross total excision of solitary mass was done. Solitary tumor mass of 5x5x4cm encapsulated, firm mass in consistency, white in color, lying over paraspinal exiting nerve root over L3-L5, was seen as shown in figure above.

diffuse reactivity for $CD34^{4+}$, Bcl^{2+} and $CD99^{4+}$ and non-reactivity to Beta-Catenin, Desmin, EMA, S-100, SMA. These markers are distinctive feature of SFT.

Discussion:

First case of Solitary fibrous tumor reported in the pleura by Klemperer and Rabinin 1931,was uncommon spindle cell neoplasms of mesenchymal origin.[6,7] These rare lesions usually arise from an intrathoracic -50%.[8]Extrathoracic locations are spinal cord, head and neck, extremities, abdominal and pelvic organs, and retroperitoneum.[9,10] SFT can present in a wide range of age groups with peak incidence noted in 5th to 7th decade of life, with no gender predilection.[11,12] They present as asymptomatic slow-growing masses difficult to distinguish from other soft tissue tumors such as synovial sarcoma, benign fibrous histiocytoma, dermatofibrosarcoma, neurofibromma, schwannoma, fibromas and myofibromas. Histological examination of biopsy tissue after stained with H&E shows a collagenous matrix with arrays of haphazardly arranged, uniform elongated spindle cell. And immuno-histochemical staining shows astrong reactivity for CD34. Most of these lesions have a benign course, but local reccurence and metastasis have been reported in a number of cases.[13] In terms of malignant potential, pleural SFTs are more likely to be malignant when compared with extrapleural tumors.[14] The diagnosis of the tumor is based on the microscopic appearance of biopsy tissue on H&E staining and immno-histochemical staining for CD34, CD99. Clinically it is treated by local excision without adjuvant therapy because they are believed to be relatively slow growing.

Conclusion:

SFTs of the spine, especially lumbar spine, are exceedingly rare with only a few published cases most commonly benign. The diagnosis depends on microscopic and immunohistochemical features, although imaging may

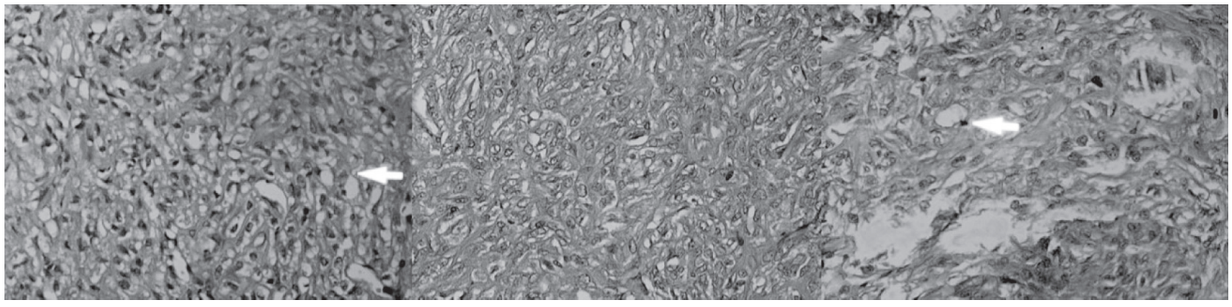

Fig. 3 Microscopic examination of biopsy tissue after the Hematolxylin and Esoin staining showed comprised of collagenous matrix with arrays of haphazardly arranged, uniform elongated spindle cell. Nucleus of tumor cells showed a pleomorphism. Tumors cell were scored for mitotic activity, cellularity, nuclear pleomorphism, necrosis and the presence of a malignant component.

help. Patients with these tumors can be safely treated with local excision, but tumors with positive margins require close follow-up over several years owing to the potential for late local recurrence.

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