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Primay Extraosseous Ewing's Sarcoma Of The Lombar Epidural Space Presenting As Cauda Equina Syndrome

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A 31-year-old woman complained of right sciatica for 2 months followed one month later by gait disturbance and weakness of right lower extremity. Magnetic Resonance Imaging (MRI) revealed a extradural mass extending from L4 to S1/S2 interspace. It appeared hypo-intense on T1-weighted and T2-weighted images and contrast enhancement after injection of gadolinium (Figure 1A, B and C). Axial MR images revealed a mass extention to the right neural foramen at the L5–S1 which is enlarged (Fig1D, E). The patient underwent laminectomy of L4 to S1, A highly vascular lesion was seen in the epidural space, extending from L4 root axilla down to the S1 root, could be excised totally. there was no visible bone involvement. Histopathological study revealed high cellularity small round cells with hight nuclear cytoplasmic ratio (Figure 2). Immunohistochemically, the tumor cells were positive for CD99. A diagnosis of Primary Extraosseous Ewing Sarcoma (EES) was favored and confirmed by molecular cytogenetic analysis. At 1-year follow-up, after completing adjuvant chemoradiotherapy, the patient is symptom free.

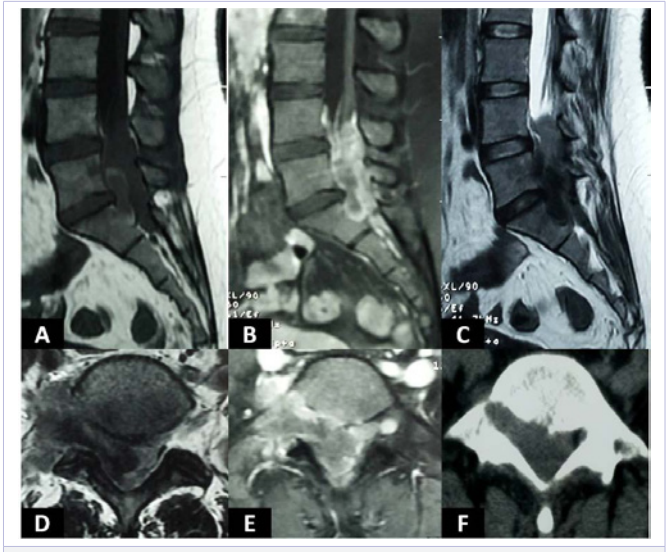

Figure 1: Precontrast (A) and postcontrast (B) sagittal T1-weighted and T2-weighted (C) MR images demonstrate a large extradural mass, measuring 8 x 4 x 2cm, extending from uper edge of L4 down to S1/S2 interspace. Hypo-intense on both T1-weighted and T2-weighted images and contrast enhancement after injection of gadolinium. Axial MR images : postcontrast T1-weighted (D) , T2-weighted (E) and axial CT scan (F) revealed the extension of the mass to the right neural foramen at the L5–S1 level which is enlarged.

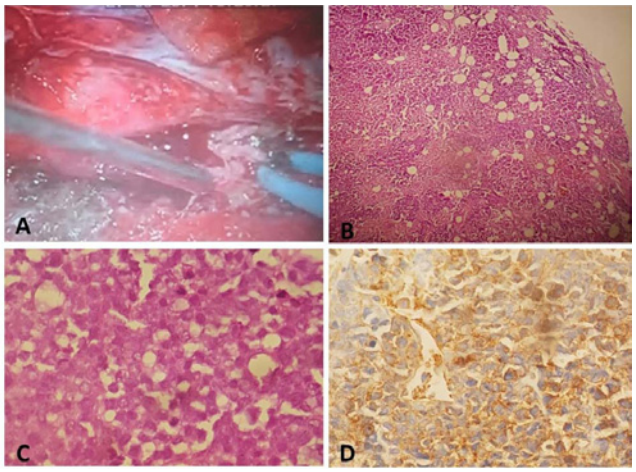

Figure 2: (A) Intraoperative photograph showing a hight vascular tumor along the lateral aspect of thecal sac and right S1 nerve root. (B and C) Hematoxylin and Eosin staining of the tumor under low- and high-power microscopic fields showing tumor cells with high N:C ratio, stippled chromatin, vacuolated cytoplasm, and high mitotic activity. The tumor cells were diffusely immunoreactive to CD99 (X400) (D).

EES is a rare neoplasm that is difficult to diagnose. It can cause spinal cord and cauda equina compression [1]. Complete tumor resection with adequate chemoradiotherapy is considered as the optimal therapeutic [2].

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