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CEREBELLAR MEDULLOBLASTOMA WITH DROP METASTASIS TO SACRAL CANAL: CASE REPORT

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KEYWORDS :

INTRODUCTION: Medulloblastoma is one of the commonest pediatric brain malignancies. Metastasis of medulloblastoma can be found in both neuroaxial and extraneural locations. Supratentorial metastasis is found in 14.6% of cases, intraspinal metastasis in 12.5% and systemic metastasis in 9.7%.(1). We present a operated case of cerebellar medulloblastoma with postoperative craniospinal radiotherapy, who developed drop metastasis to sacral canal.

CASE REPORT: A 19 yr old boy, operated for cerebellar medulloblastom in 2014(MRI BRAIN 2014, FIG 1) the lesion was excised totally with histopathology report suggestive of desmoplastic medulloblastoma (Fig 3A). Postoperatively he received craniospinal radiation, although the spine imaging did not reveal any lesion. The CSF showed malignant cells. He presented to us with backache and parasthesia on medial aspect of thigh of progressing for the last two months. On examination, there was tenderness on sacral region with hypoesthesia in S2, S3 region. MRI of lumbosacral region showed, (FIG 2) a well defined lesion in the sacral canal, intradural, extending from S1 to S4, Hyperintense on T2W, and isointense on T1W, with abnormal marrow signal from S2 to S4. Suggestive of intradural sacral metastasis. We investigated by screening of brain, fundoscopy and other routine parameters, and there was no brain recurrence, fundus was normal, and rest of the parameters were normal. He was operated and total excision of the lesion done. Histopathology confirmed it to be aggressive medulloblastoma with high MIB index. (FIG3 B). He made a good post operative recovery and then subjected for chemotherapy. Post operative MRI of lumbosacral spine showed total excision of lesion (Fig 4).

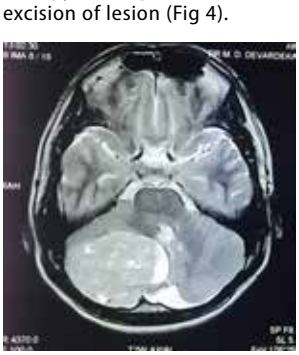

Figure: 1

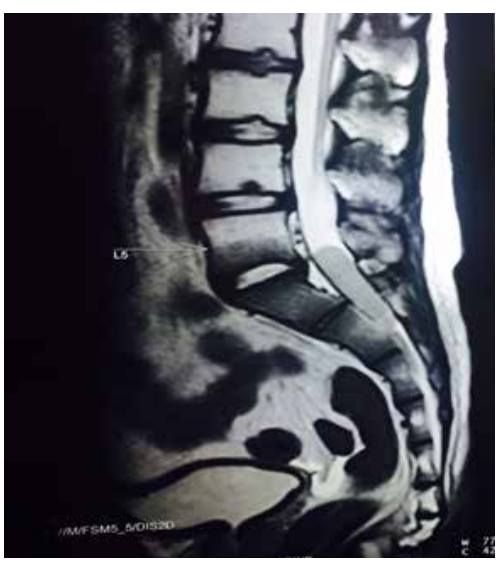

Figure 2:

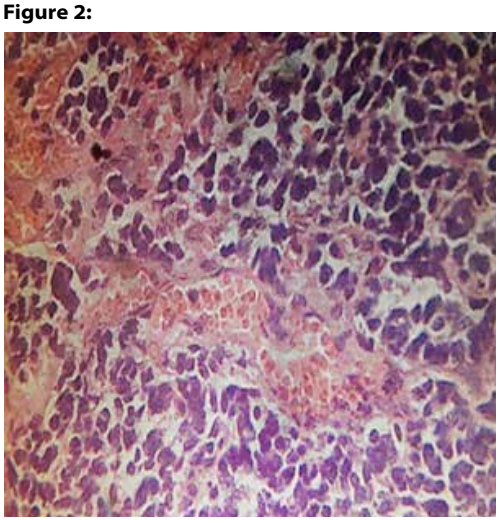

Figure3 A

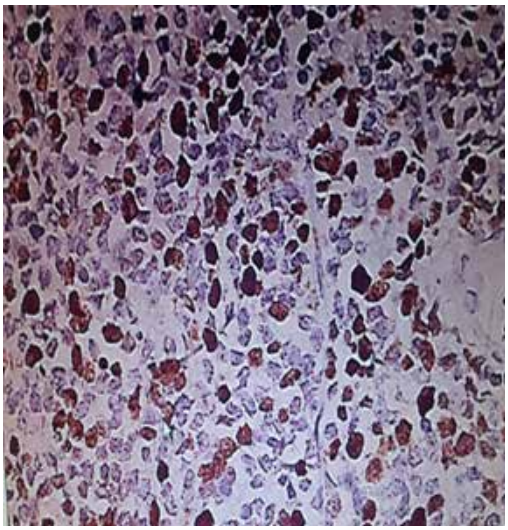

Figure3 B

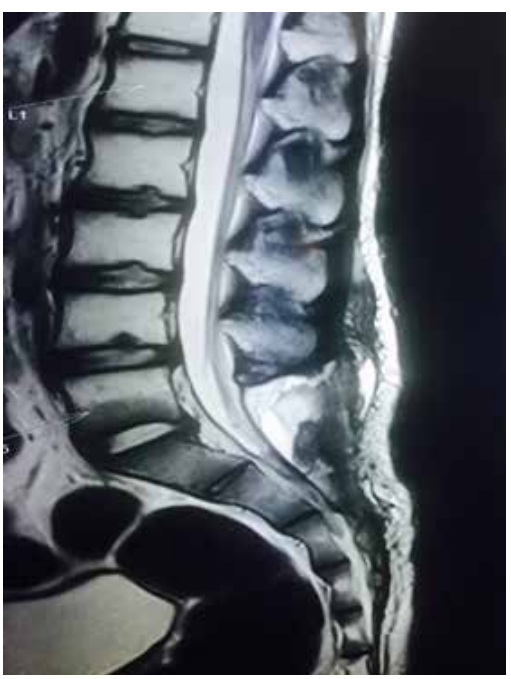

Figure 4 :MRI SACRAL REGION POST OP

DISCUSSION:

common presenting features of medulloblastoma are abnormal gait, truncal ataxia and signs of raised intracranial pressure, including headache, vomiting, and papilloedema. Metastasis of medulloblastoma can be found in both neuraxial and extraneural locations. Supratentorial metastasis is found in 14.6% of cases, intraspinal metastasis in 12.5% and systemic metastasis in 9.7% (1). Medulloblastoma spread by local invasion, hematogenous dissemination, seeding along cerebrospinal fluid pathways and less likely by lymphatic dissemination (2). Intraspinal spread from primary intracranial tumors by seeding along CSF pathways is well recognized at autopsy. In the lumbosacral region, nodularity and irregularity of the thecal sac is common, as is diffuse thickening and adhesions of the nerve roots and irregular obliteration of the subarachnoid space. The high incidence of involvement of the lumbosacral region shows the effect of gravity on CSF-borne metastases (3). It is rare for them to have intramedullary spinal cord metastasis (4). Pezesshkpour and colleagues analyzed more than 18000 primary central nervous system tumors and found that only 0.01% of them had drop spinal metastases, which had caused the presenting symptoms(1). At the time of diagnosis around 10 to 35%of the cases had extramedullary intradural metastasis, however, their main presenting symptoms were due to the primary intracranial tumor(5).Stanley and colleagues, in 1988, reported on 34 patients with medulloblastoma(6). Fifteen of those had a positive result on myelogram for spinal metastasis and only one patient suffered from lower limb weakness related to spinal pathology. There have been a limited number cases with spinal inrtamedullary metastasis reported in literature (7). In general medulloblastoma spinal metastasis varied from nodular lesion to complete spinal block in order to have better staging, it is recommended to have a complete spine survey once a posterior fossa lesion with cisternal involvement is diagnosed.

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