

Case Report

Spinal Oligoastrocytoma

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Background

Oligoastrocytoma a mixed variety disease is not occasionally reported and can occur in brain and spinal cord. Spinal oligoastrocytoma is one of rarest condition to witness by pathologist and clinicians.

Material and Method

This case was reported at Department of Neurosurgery, LUMHS Jamshoro, A 12 year old male patient who admitted to neurosurgery department through OPD with complains of pain in mid back for 2 years, loss of urinary and fecal control for last 7 months, weakness of lower limbs for last 6 months and inability to walk since last 2 months. Patient had pain in dorsolumbar region for last 2yrs which was on and off , severe in intensity , nocturnal relieved by injectable medications ,with passage of time initially he suffered from overflow incontinence followed by fecal incontinence and developed weakness of both lower limbs which progressed from distal to proximal ,it was painless and caused patient to fell down after few steps ,then after short duration of time patient became bedridden ,on examining he had decreased power in upper limbs and had power against resistance i.e. 4/5 , griping was also weak otherwise reflexes ,tone and other findings in upper limb were normal , in both lower limb he had muscular atrophy with flaccidity , reflexes were absent ,fasciculation was negative ,power was 0/5 in both lower limbs , plantar were non responsive ,he had decreased anal tone with loss of bladder control he had anesthesia below D6 level and had kyphotic deformity and tenderness over mid back rest of CNS examination was normal . Patient was

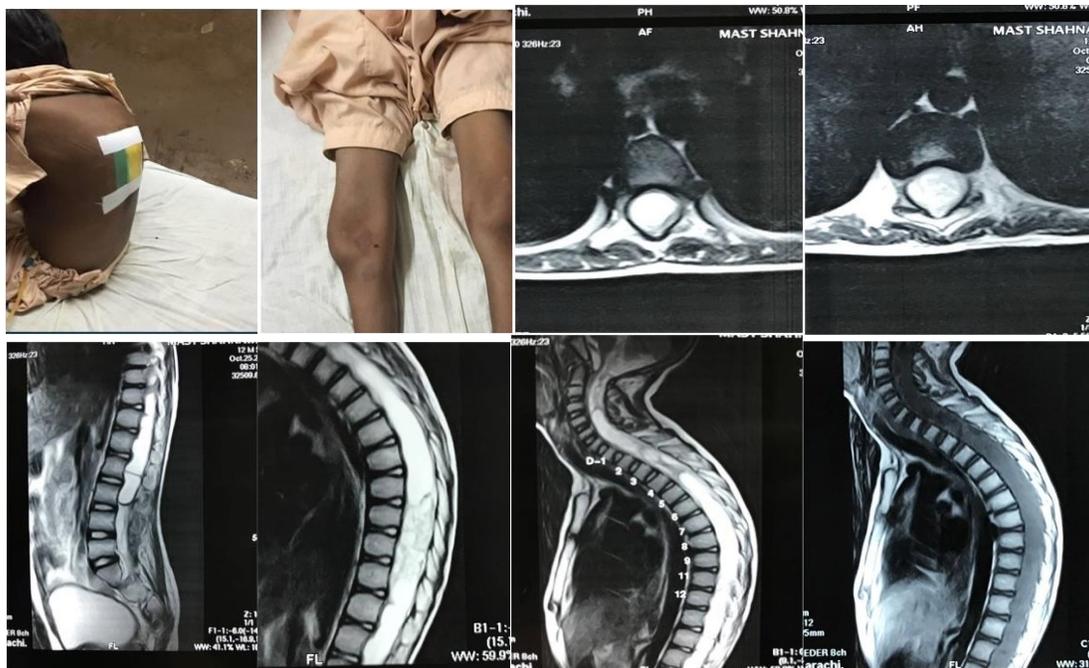
investigated and MRI of spine showed a Space occupying lesion extending from cervical to lumbar region with intra medullary presence in axial scans and.so patient underwent D9 to L1 laminectomy with mylectomy a tumor was gross totally excised. Intraoperatively the tumor was reddish colored, with jelly like thread seen below tumor level it was adhering spinal cord separated and removed in piece meal, histopathology reviled **oligoastrocytoma spine**.

Spinal oligoastrocytoma are mixed glial cells having both astrocytic and oligodendroglial components and is one of most rare of spinal cord pathologies. To date only 7 cases were reported in literature.

Such tumors occur in early adolescent and young adults till Middle Ages 40's, but they can however occur in children and are very difficult to identify from astrocytomas on radiological imaging. ZHUO described one in May '2016 as primary spinal oligoasrocytoma in craniofacial journal¹. Shinztu described another in 2004 according to him these are one extremely rare conditions to occur and only few cases are reported he reported it 43 year old and showed that disease had genetic involvement with chromosome 1p & 19q, those with such associations have better survival, and in that report patient further went for radiotherapy³. Guo JH described primary spinal cord

anaplastic oligoastrocytoma in spinal journal in Feb '2016 in paraplegic patient³. According to him it is rare lesion he reported it in 10 year old girl and her mri showed

intramedullary mass from c5 to d5 with syringobulbia and syringomyelia, genetic analysis showed 1p and 19q association and not 10 q association.



Conclusion

To our best of knowledge, it is one of extremely rare condition and only 7 cases are reported in past. This case report is to add on knowledge about spinal oligoastrocytoma to occur among children with their unique presentation and large spinal involvement from cervical to lumbar region.

References

1. Zhao H, Yang L, Niu J, Yuan X, Guo L. Primary Spinal Oligoastrocytoma. Journal of Craniofacial Surgery. 2016 May 1; 27(3):e311-3.
2. Shimizu, T., Saito, N., Aihara, M., Kurihara, H., Nakazato, Y., Ueki, K., & Sasaki, T. (2004). Primary spinal oligoastrocytoma: a case report. Surgical neurology, 61(1), 77-81.

3. Guo, J. H., Huang, H. M., Hsu, Y. C., & Cho, D. Y. (2016). Primary spinal cord anaplastic oligoastrocytoma presenting with paraplegia. The Spine Journal, 16(8), e541-e542. Journal of Craniofacial Surgery. 2016 May 1; 27(3):e311-3.