IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 14, Issue 4 Ver. VIII (Apr. 2015), PP 27-28
www.iosrjournals.org

Spinal Cord OLIGODENDROGLIOMA– A Case Report

Dr.N.L.N.Moorthy[1], Dr. Deepthi Kondeti[2], Dr. D.Mahesh Chander[3], Dr. Harish Jadhav[4], Dr.Ashok[5].

Department of Radiodiagnosis & Neurosurgery, Gandhi hospital, Secunderabad, India-500003.
[1,3,] Professor of Radiology, Gandhi Hospital
[2,] Resident in Radiology, Gandhi Hospital
[4,] Associate professor of Neurosurgery, Gandhi Hospital
[5,] Professor of Pathology, MNR medical college.

Abstract: *Oligodendrogliomas are extremely rare intramedullary spinal cord tumours and only a few cases were reported in the literature. The most common site is thoracic cord. We report a case of oligodendroglioma in a middle aged male patient presenting as a rapidly growing intramedullary spinal cord tumour, which was surgically excised.*

Keywords: *Intramedullary, Oligodendroglioma, spinalcord*

I. Introduction

Oligodendrogliomas are slow growing primary neuroepithelial brain tumours occurring in the age group of 50-60 years. These tumours are mostly benign and the aggressive form tends to spread via CSF pathway. Spinalcord is a rare site for oligodendroglioma with an incidence of 1-2%. They mostly occur in thoracic cord followed by cervical and lumbar region, Edel man [1] .

II. Case Report

A 44year old male presented with weakness of both lower limbs since 4months followed by total inability to walk since 10days with associated urinary incontinence. The patient has no history of trauma or any significant medical illness. CNS examination demonstrated "0" power in both the lower limbs, decreased sensation in infra umbilical region with absent lower limb reflexes. Routine laboratory investigations and plain radiography of spine was normal. MRI spine revealed the presence of 5.8cm intramedullary mass which was iso intense on T1&T2 weighted sequences with patchy enhancement on contrast. The proximal cord was edematous. Rest of the cord and brain were normal. At surgery a soft suckable tumour was identified and the histopathological examination revealed presence of round cells with moderate amount of eosinophilic cytoplasm and scanty glial fibres with no evidence of pleomorphism/mitotic activity suggestive of oligodendroglioma grade II.

III. Discussion

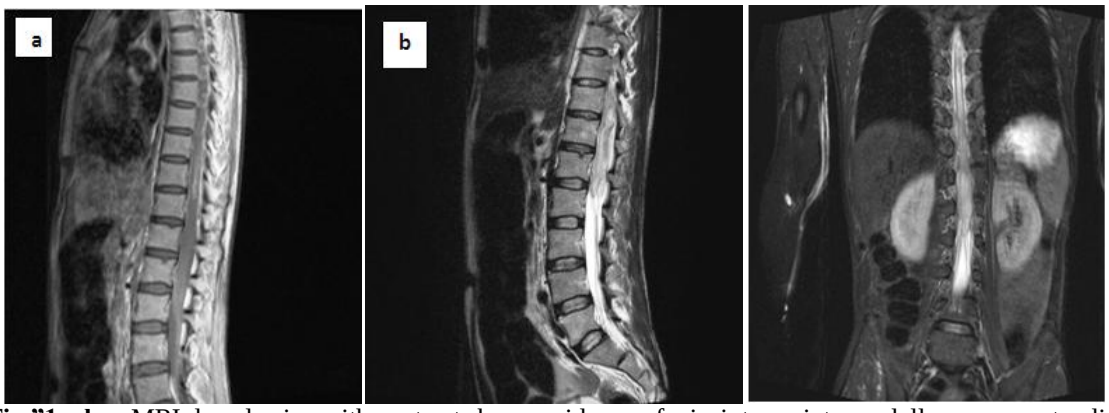
Intramedullary spinalcord tumours accounts 4-10% of CNS tumours, of which ependymoma is more common in adults and astrocytoma is more common in children, Kelly[2]. A centrally located mass with intense enhancement with the presence of cleavage plane forms the main feature of ependymoma where as eccentric location with patchy enhancement favours astrocytoma.

Oligodendroglioma as cause of intramedullary mass are infrequently reported. Wober[3] reported a case of intramedullary oligodendroglioma with associated meningocerebral dissemination. Intramedullary spread of cerebral oligodendroglioma was reported by Vera Van Velthoven [4], Oshiro S [5]. C. Ramirez[6] described a case of intracranial dissemination from a primary spinal cord anaplastic oligodendroglioma. Ng HK[7] described a case of cerebral anaplastic oligodendroglioma presenting with drop metastasis to spinal cord. Jin Gyun Kim[8] presented a case of spinal epidural metastasis from cerebral oligodendroglioma. Kostas N.Fountas[9] reviewed the clinical, radiological and pathological characteristics in spinal oligodendrogliomas in paediatric age groups. Gürkanlar D [10] reported a case of spinalcord oligodendroglioma with invasion of conus.

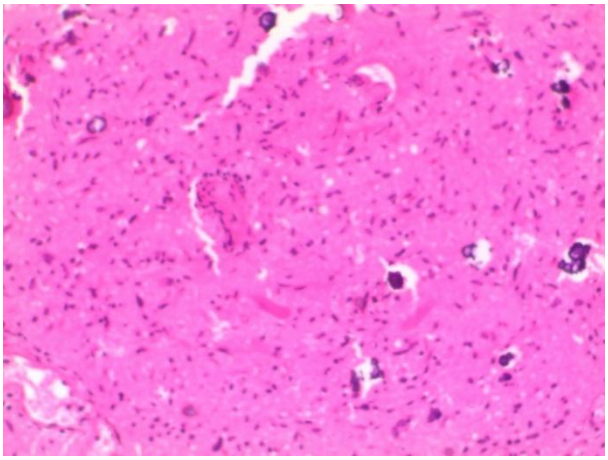
In the present case the patient developed sudden onset of urinary incontinence with inability to walk probably due to rapid progress of the lesion. Though most of the tumour was removed on surgery the recovery was not complete. Oligodendrogliomas does not have any specific imaging features. In view of the rarity this case has been reported.

IV. Conclusions

Oligodendrogliomas can also affect the spinal cord without the involvement of brain and has to be considered in the differential diagnosis of intramedullary tumours in middle aged patients.



"Fig."1.a,b,c. MRI dorsal spine with contrast shows evidence of a isointense intramedullary mass extending from D11-L2 showing patchy contrast enhancement and proximal cord edema.



"**Fig.2"** shows round cells with moderate eosinophilic cytoplasm and scanty glial fibres.

References

[1]. Edelman, Spinalcord and intradural disease,Clinical magnetic resonance imaging 3rd ed, 2006, 2163-64.
[2]. Kelly K. Koeller, CDR, MC, USN , R. Scott Rosenblum, DO , Alan L. Morrison, CDR, MC and USN, Neoplasms of the Spinal Cord and Filum Terminale, Radiologic-Pathologic Correlation, Radiographiocs 2000, 20, 1721-1749.
[3]. Wober G, Jellinger K, Intramedullary oligodendroglioma with meningocerebral dissemination, Acta Neurochirurgica, 35;4, 1976, p.261-9.
[4]. Vera Van Velthoven, Luc Calliauw and Jacques Caemaert Ugent,Intramedullary spread of a cerebral oligodendroglioma, surgical neurology(1988),30(6). P.476-481
[5]. Oshiro S[1], Komatsu F, Tsugu H, Nabeshima K, Abe H, Ohkawa M, Inoue T; A case of intramedullary cervical metastasis from cerebellar anaplastic oligodendroglioma without typical MR appearance for CSF dissemination; 2010 Mar;38(3):279-85.
[6]. C. Ramirez[1], O. Delrieu[2], J.-F. Mineo[1], G. Paradot[1], M. Allaoui[1], F. Dubois[1] and S. 11,Intracranial dissemination of primary spinal cord anaplastic oligodendroglioma, APR 2007
[7]. Ng HK, Sun DT,Poon WS, Department of Anatomical and Cellular Pathology, Prince of Wales Hospital, The Chinese University of Hong Kong, Shatin, Hong Kong. hkng@cuhk.edu.hk; Clinical Neurology and Neurosurgery [2002, 104(4):383-386].
[8]. Jin Gyun Kim, Spinal epidural metastasis of cerebral oligodendroglioma, yousei medical journal, vol.44,no.2, 2003.
[9]. Kostas N.Fountas, Ioannis Karampelas, Leonidas G.Nikolakakos, E.ChristopherTroup, Joe Sam Robinson , Primary spinalcord oligodendroglioma;case report and review of the literature; 12 March 2004.
[10]. Gürkanlar D, Koçak H, Aciduman A, Yucel E, Ekinci O,Primary spinal cord oligodendroglioma. Case illustration, Neurocirugia (Astur) 2006 Dec;17(6):5423.