Valley International Journals
Open Access Journal

International Journal Of Medical Science And Clinical Inventions
Volume3 issue 10 2016 page no. 2277-2280 e-ISSN: 2348-991X p-ISSN: 2454-9576
AvailableOnlineAt:http://valleyinternational.net/index.php/our-jou/ijmsci

Myoepithelioma: A tale of uncommon benign spinal cord tumor presenting with spastic paraplegia

Dr.Daspin.D.[1], Dr.Abhin Joseph[2], Dr.Tom Aby[3], Dr.Ramalingam Sivaraman[4] ,Dr.Francis Gananaprakasam[5]

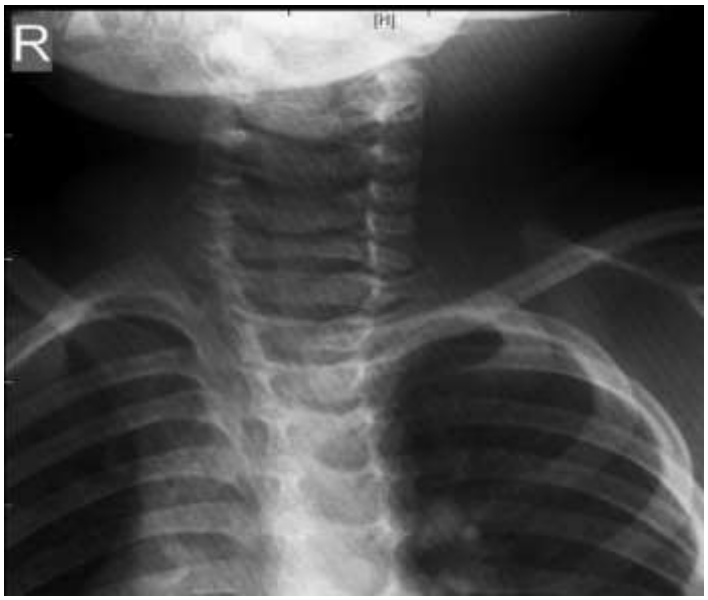
[1]MBBS.,DMRD, Department of Radiology, MIOT International Hospital, Mount Poonamalle Road, Manapakkam, Chennai -600089, Tamil Nadu, India
[2,3]MBBS., Department of Radiology, MIOT International Hospital, Mount Poonamalle Road, Manapakkam, Chennai -600089, Tamil Nadu, India
[4]MBBS., DNB(RAD) ,Department of Radiology, MIOT International Hospital, Mount Poonamalle Road, Manapakkam, Chennai -600089, Tamil Nadu, India
[5]DMRD., DNB., MNAMS.,Department of Radiology, MIOT International Hospital, Mount Poonamalle Road, Manapakkam, Chennai -600089, Tamil Nadu, India

Abstract: The current study reports the case of 3year old female child who presented in our institute with the history of weakness of both lower limbs ,bowel and bladder incontinence since 2 years. Patient was evaluated further and found to have spinal cord lesion extending from C5 to D3 vertebral levels . The patient was taken for surgery and debulking of the tumor was done .Biopsy of the lesion was proven to be myoepithelioma .The patient was followed up for the past 2 years which showed significant improvement with near normal power on both lower limbs ,increased sensation to pain below T5 dermatomes and no evidence of bowel /bladder incontinence .

Key words :- Myoepithelioma , Pleomorphic adenoma , Warthins tumour ,Dorsal myelopathy, Transverse myelitis ,MIB1 - Mind bomb E3 Ubiquitin Protein Ligase 1

Clinical History :-

3 Year old female child presented with the history of weakness of both lower limbs ,bowel and bladder incontinence since 2 years .On general examination ,the child appears unremarkable .Both the lower limbs appears spastic with grade 0 power and reduced sensations to pain below T5 dermatome including the perianal region .Deep tendon reflexes appears exaggerated in both the lower limbs. Based on the clinical diagnosis, remote dorsal myelopathy and transverse myelitis was done .



DOI:10.18535/ijmsci/v3i10.9

Figure -1 Plain frontal view radiograph of the cervico dorsal spine shows widening of the spinal canal.

Imaging Features on the plain X-ray of upper cervico-dorsal spine showed widening of the lower cervical and upper dorsal spinal canal with ill-defined soft tissue attenuated opacity (1,2).

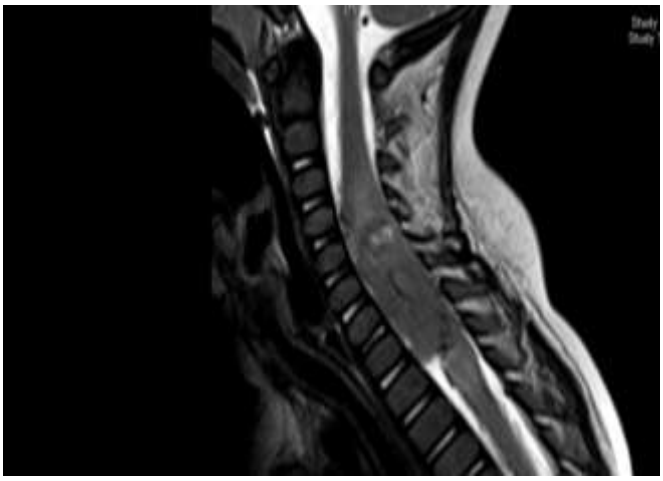
CT scan revealed ill-defined soft tissue attenuated lesion within the spinal canal from C5 to D3 vertebral levels .No bony abnormality of the spine detected.

MRI scan showed well-defined heterogenous intradural intra and extramedullary mass lesion extending from the level of C5-C6 till the level of T3 mid vertebral level.The lesion appears isointense on T1 W ,iso -hypointense on T2W with prominent vessels in and along the surface of cord both proximal and distally . No evidence of diffusion restriction noted.

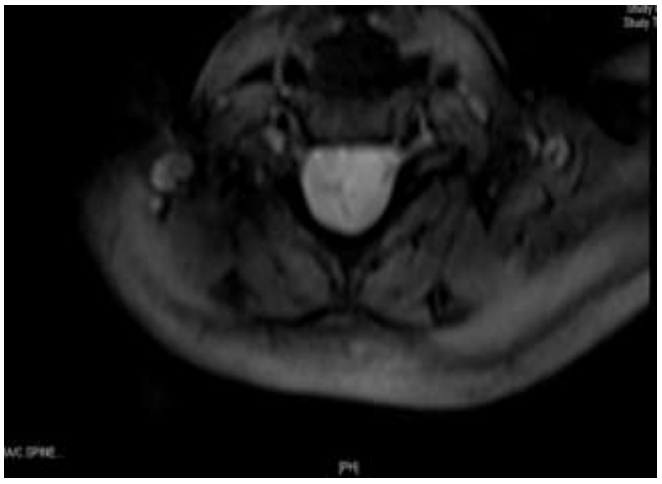
On post contrast imaging ,there is significant enhancement noted within this lesion . Based on the imaging features the differentials included are paraganglioma and ependymoma.

Patient was taken for surgery and following which debulking of the tumour was done and followed up regularly .The biopsy of the lesion revealed cervical intradural ,extra and intramedullary neoplasm with epitheloid and rhabdoid factor of uncertain malignant potential .MIB-1 labelling index of 10-15%.Finally the diagnosis of Myoepithelioma was made (3,4).

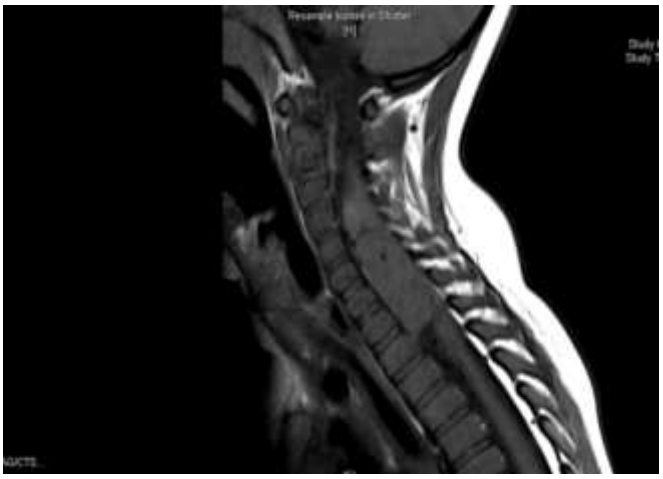
Follow up scan was done after 2 years which showed Grade 4 power on both lower limbs ,increased sensation to pain below T5 dermatomes.Deep tendon reflexes normalised in both lower limbs .No history bowel /bladder incontinence.



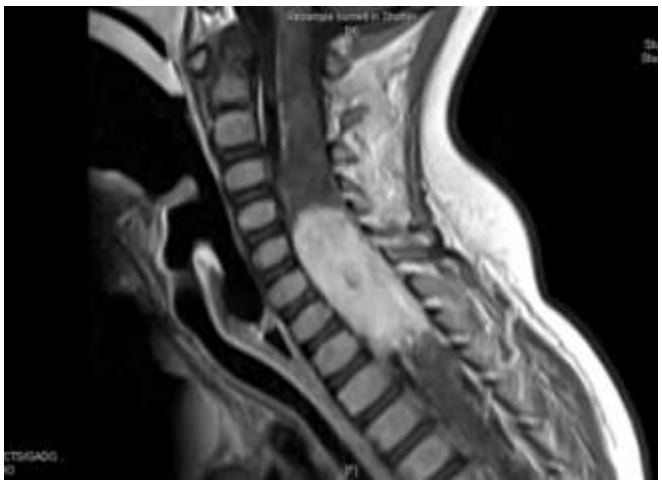
a



b

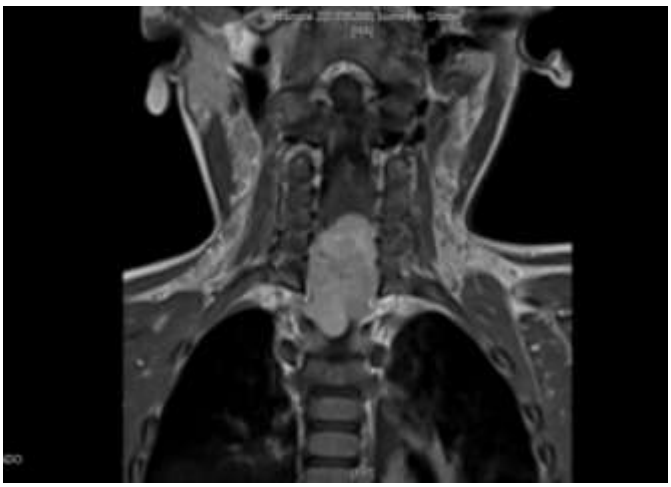


c

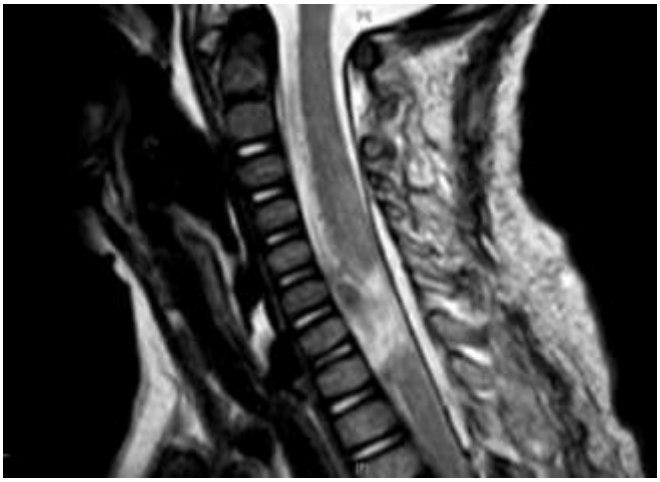


d

DOI:10.18535/ijmsci/v3i10.9

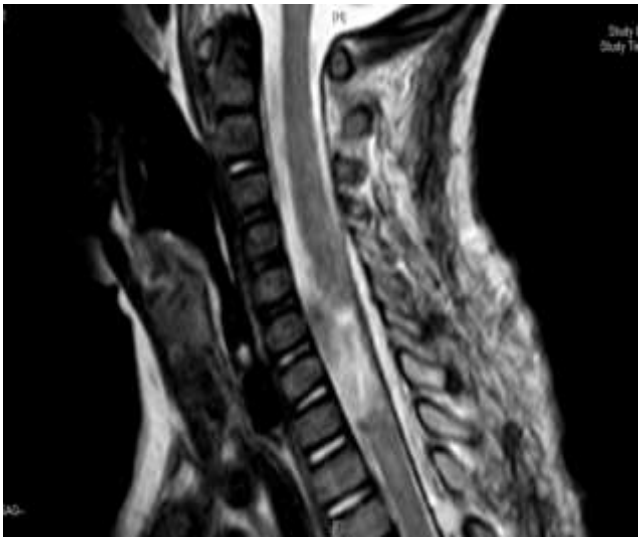


e

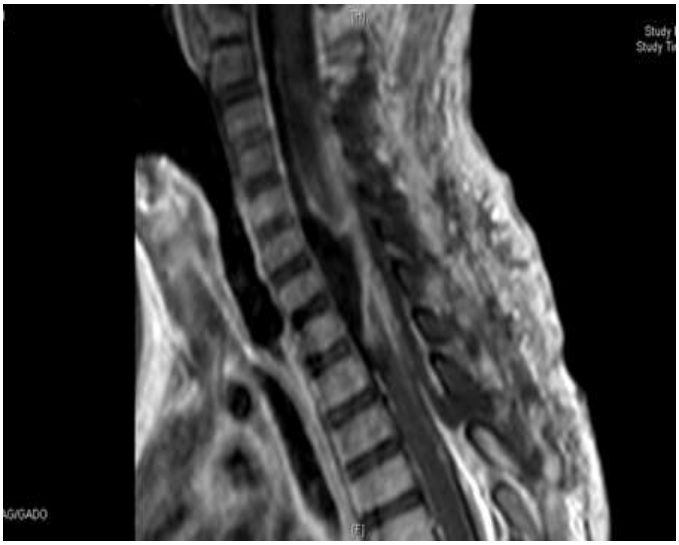


f

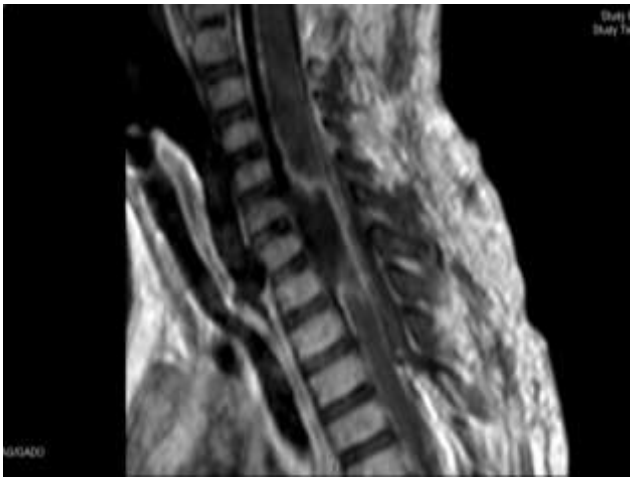
Figure 2 (a-f) Expansile intradural intramedullary and extramedullary tumour appearing isointense to cord on T1 W ,iso-hypointense with prominent vessels on T2W images .The mass shows significant enhancement on contrast .



a



c



b

Figure 3 (a-c) Follow up images showing post op defect with no evidence of residual tumour .

Discussion :-

Myoepithelioma is a rare benign tumour . Myoepitheliomas account for 1.5% of all of the tumors in the major and minor salivary glands . Nearly 40% arise in the parotid glands. These are benign tumour showing myoepithelial differentiation.Clinical course is variant with lymph node metastasis at presentation .23.5% shows evidence of local recurrence with low malignant potential .Some of these lesions are aggressive (5,6).The use of CT for the assessment of parotid tumors is well established. Although much has been written on the imaging appearance of the

DOI:10.18535/ijmsci/v3i10.9

pleomorphic adenomas and Warthin tumors ,the detailed imaging features of myoepitheliomas of the salivary glands have not been much described in the literature(7,8).Diagnosis is based on the infiltrative nature and presence of dual glandular secretory and myoepithelial differentiation(8,9).

On CT ,these lesions are hypo- to iso-dense , well-demarcated with irregular in outline with marked enhancement on post contrast images .On MRI ,these lesions are iso-intense on T1 w images ,intermixed intensity on T2 w images and show marked enhancement on post contrast images .

Conclusion :-

Spinal myoepithelioma should also be considered as a differentials when we see an intradural mass with extra and intramedullary component. These are rare benign tumors of the major and minor salivary glands. Timely diagnosis will help the patient in early management and recovery.

References :-

1.Primary myoepithelioma of the dorsal spine: a case report and review of literature.Savardekar AR1, Goudihalli S, Chatterjee D, Ahuja CK, Salunke

2.Corio RL, Sciubba JJ, Brannon RB. et al. Epithelial myoepithelial carcinoma of intercalated duct origin. A clinicopathologic and ultrastructural assessment of sixteen cases. Oral. Surg. Oral.

3.Med. Oral. Pathol., 1982:53:280-87. Hamper K, Brigmann M, Koppermann R, et al. Epithelial myoepithelial duct carcinoma of salivary gland: A follow up and cytophotometric study of 21 cases. J. Med. Oral. Pathol., 1989;18:299-304.

4.Collina G, Gale N, Visona A, et al. Epithelial myoepithelial carcinoma of the parotid gland: A clinicopathologic and immunohistochemical study of seven cases. Tuinori, 1991;77:257-63.

5.Simpson RH, Clarke Ti, Sarsfield PT, et al. Epithelial myoepithelial carcinoma of salivary glands. J. Clin. Pathol., 1991,44:4 19-23.

6.Fonseca!, Soares J. Epithelial myoepithelial carcinoma of the salivary glands: A study of 22 cases. Virchows Arch., l, 1993;422:389-96.

7.Tortoledo ME, Luna MA, Batsakis JO. Carcinomas ex-pleomorphic adenoma and malignant mixed tumours. Histomorphologic indexes. Arch. Otolaryngol. Head Neck Surg., 1984:110:172-76.

8.Ellis GL, Auclair PL. Atlas of tumour pathology. Tumour of the salivary gland. Editor Juan Rosai. Washington, D.C., Anned Forces Institute of Pathol., 1994.

9.Mc-Cluggage WG, Primrose Wi, Toner PG. Myoepithelial carcinoma (malignant myoepithelioma) of the parotid gland arising in a pleomorphic adenoma. J. Clin. Pathol., 1998;51:552-56.

DOI:10.18535/ijmsci/v3i10.9