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Treatment of cervicodorsalepidermiod cyst

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Abstract

Intramedullary spinal epidermoid cysts are rare, with only few cases having been reported in the literature. A case of a eighteen months-old male child who presented with chronic progressive qaudriparesis and urine incontinance . Magnetic resonance imaging of the spine revealed an intramedullary epidermoid cyst at cervicomedullary at level c2-c3. Near-total excision of the tumor was performed. Histopathological report confirmed the diagnosis of epidermoid cyst. The patient showed progressive recovery.

Introduction

Intraspinalepidermoid cyst is a rare tumor. The incidence of intraspinalepidermoid cysts in children is 3% and in adults is 1% **[1-3].** A large portion of epidermoid cysts are subdural and extramedullary. True intramedullary epidermoid cysts are uncommon, with <60 cases having been reported in the literature since the first reporting of the entity by Chiari in 1833. Of these, a very few have detailed radiographic evaluation. Intramedullary epidermoid cyst is common in the dorsal and lumbosacral region. Regions with two frequent localizations are T4-T6 and T11-T12, while only three cases have been reported with cervical cord involvement**[2,4,5].**The aim of this study to present a case of intramedullary epidermoid cyst in the cervicodorsal region, which was evaluated by magnetic resonance imaging (MRI).

Case report

A eighteen months-old male child presented with chronic progressive weakness of all four limbs of five months duration. He also had neck pain for similar duration with urine incontinence and constipation for one month. He didn't have fever, vomiting, seizure or disturbance level of consciousness. Examination showed hypertonia in all four limbs, power G3/5 in upper limbs, while G2/5 in lower limbs with exaggerated and symmetrical reflexes. Planters were extensor type. Above foramen magnium was normal which included (consciousness level, speech, cranial nerves). Magnetic resonance imaging (MRI) reveals fusifom bulky and enlarged segmental cervicodorsal cord and hypertensive on T1W and hypertensive on T2W with mixed signal intramedullary cystic-necrotic ans solid lesion on post Gad images from C2-D2 levels, with syringo-hydromylia; primary cervico-dorsal cord mitosis (astrocytoma most likley). His father decided to take him outside Iraq to (India) to performed operation. Procedure: tumor was approached by laminoplasty from C2-D1 and tumor decompression; it was adherent to underlynigdura at places. The tumor was partly calcified and partly soft. The soft part of tumor consists of tooth past like materal with hairs. Histopathological finding show mixed cyst-fibrovascular tissue lined by keratinising stratified squamous epithelium and filled with abundant keratin flakes. No adnexal structures are seen. The features are those of epidermal cyst. Post-operative, the patient was treated with supportive measures (high dose of steriod, baclofen orally 10mg/day) and physiotherapy. He was gained satisfactory neurological recovery for six months follow up with power improvement in both upper and lower limbs, decrease in tone and he know able to walk alone with sphincter control.

Discussion

Epidermoid cysts are mainly congenital as they take origin from anomalous inclusion of the ectoderm tissue during the closure of the neural tube in early fetal life and possibly may be associated with defective closure of the dural tube. This may have manifestations of other forms of dysraphism, such as syringomyelia, dorsal dermal sinus, spina bifida and hemivertebrae**[6-7].**Iatrogenic penetration of the skin fragments after single or multiple spinal lumber punctures or after meningomyelocele repair may result in an acquired form of epidermoid cyst. This has been reported even years after the spine procedure. These epidermoid-dermoid

cysts are masses of desquamated epithelial cells and keratohyaline, encapsulated by a layer of stratified, squamous epithelial cells, usually filled with a soft, whitish yellow waxy substance with hairs and glandular secretions in addition to areas of induration**[8] .** MRI is the excellent imaging modality for evaluating and delineating these intradural tumors**[9].**Epidermoid-dermoid tumors can be differentiated from intrinsic glial tumors of the cord on the basis of the heterogeneity of the T1 or T2-weighted signal, lack of contrast enhancement, and signal characteristics consistent with lipid content**[8,10].** The treatment of epidermoid cyst is essentially surgical. Literature shows radiotherapy as a modality in only one case **[10].**

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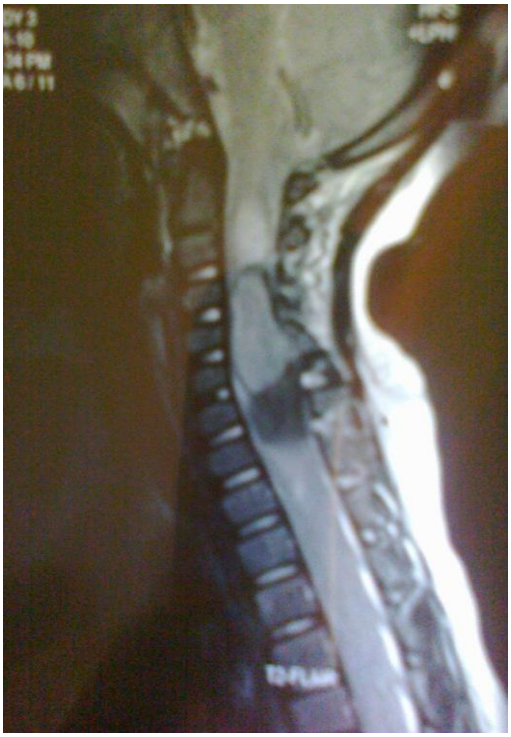
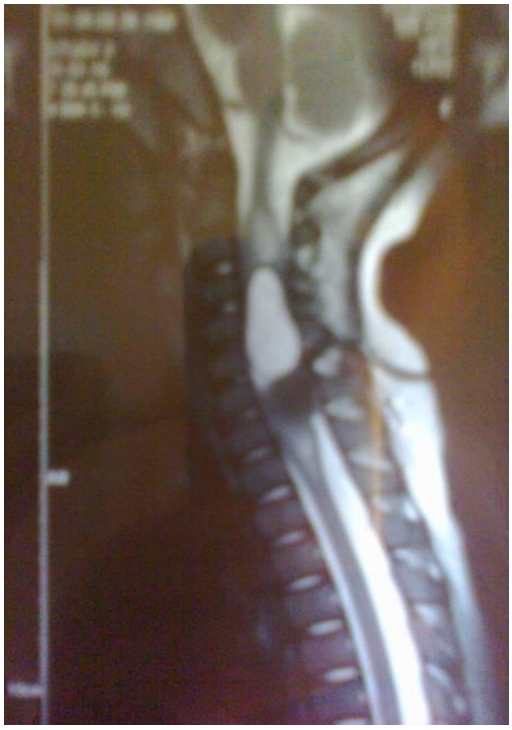
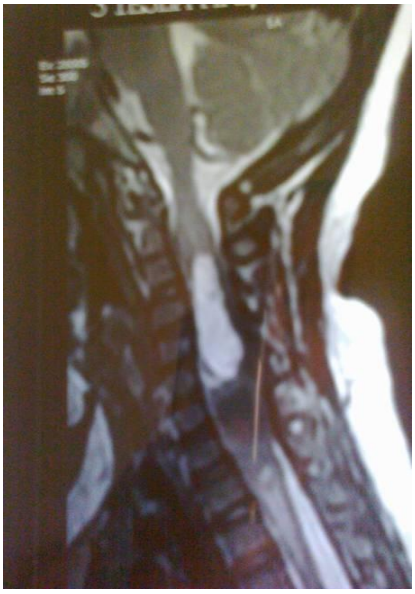
Fig.(1):- pre-operativ MRI of cervicodorsal region reveals fusifom bulky and enlarged segmental cervicodorsal cord and hypointese on T1W(A) and hyperintese on T2W(B) with mixed signal intramedullary cystic-necrotic ans solid lesion on post Gad(C) images from C2-D2 levels.



(A)



(B)



(C)

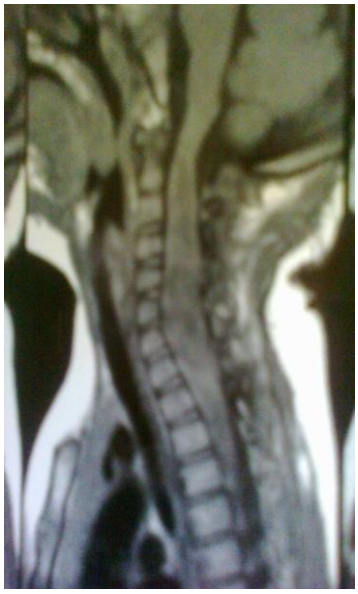


Fig.(2):- Post-operative shows complete excision of mass lesion.