

## INTRACYSTIC BLOOD MIMICKING RECURRENT EPIDERMOID OF CONUSMEDULLARIS: A CASE REPORT

Mohd Iqbal, Sumaiya Irfan\*, Hukum Singh

Departments of Neurosurgery , Departments of Pathology\*

Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER)

Era's Lucknow Medical College & Hospital, Sarfarazganj, Lucknow, U.P., India-226003.\*

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### ABSTARCT

Spinal epidermoid are rare lesion of spine. We report a case of 12 year old female who presented with difficulty in walking and weakness in left lower limb. MRI spine showed epidermoid at level of L1-L2. Laminectomy and surgical excision of the cystic lesion was planned .Intra operatively a pearly white tumor adherent to cord was found and excised. Histopathological examination confirmed the diagnosis of epidermoid cyst. One year after surgery she again came with complaint of pain at the site of surgery following which MRI was done which showed recurrence of epidermoid, intra operatively it was found that it was a cystic cavity filled with hemolyzed blood mimicking as recurrent epidermoid radiologically.

### Address for correspondence

**Dr. Sumaiya Irfan**

Department of Pathology

Era's Lucknow Medical College &  
Hospital, Lucknow-226003

Email: sumaiyairfan09@gmail.com

Contact no: +91-9005417006

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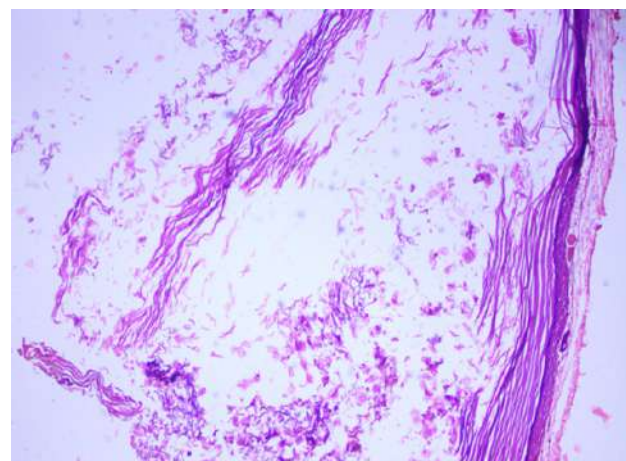
### INTRODUCTION

Spinal epidermoid are cystic lesions lined by squamous epithelium they account for less than 1% of spinal lesion (1). They were first described as tumeurs perlées (pearly tumors) by Cruveilhier in 1835 (2). Epidermoid can be congenital or acquired. They can be extradural, intradural or extramedullary, or intramedullary in the spine. Spinal epidermoids present with non-specific symptoms, MRI is helpful in arriving at diagnosis. Reoccurrence of epidermoid cyst are rare but are not uncommon after incomplete surgical excision of capsule.

### CASE REPORT

We report a case of 12 year old female who presented to our hospital with history of trauma to back 3 years back and complaints of difficulty in walking and pain in back since 2 year along with weakness of left lower limb with foot drop since 1 year. Neurological examination revealed 4/5 power in left lower limb, power at ankle 2/5 with foot drop. Upper limb had normal power. Rest of the neurological examination was within normal limits. MRI spine was ordered which showed T1, T2 hyperintense lesion at level of L1 & L2 - likely of epidermoid cyst was made. She underwent L1-L2 laminectomy along with surgical decompression of the sac. Intra operatively tumour was present just below the dura along with lipomatous tissue which was pearly

white, non vascular and non suckable, capsulated adherent to cord and one of the nerve root. A small part which was adherent to nerve root was left behind. Histopathological examination was consistent with the diagnosis of epidermoid cyst and showed cyst wall lined by stratified squamous epithelium and abundant keratinous material (figure 1).



**Fig 1: H & E, 10X View Epidermal Inclusion Cyst (Cyst Wall Lined By Stratified Squamous Epithelium & Abundant Keratin)**

The patient was discharged after uneventful hospital stay. The patient came to neurosurgery OPD after 1

year with the complaints of pain over the same site of surgery since 1 month. Again MRI was done with radiological appearance (figure:2)



**Fig 2: MRI: T1,T2 Hyperintense Lesion At L1& L2**

Showing recurrence of epidermoid. Re exploration of the earlier postoperative site with excision of recurrent epidermoid was planned. Intra operatively it was found that cystic cavity filled with hemolyzed (motor oil like fluid) was present, it was conclude that intracystic blood was mimicking as recurrent epidermoid.

### DISCUSSION

Congenital epidermoid occur as a result of inclusion of ectodermal tissue within the neural canal at the time of neural tube closure at fourth to fifth week of intrauterine life (3). Congenital epidermoids are usually associated with spinal dysraphisms such as syringomyelia, dermal sinus and spina bifida. Acquired epidermoid cysts are mostly iatrogenic occur as a result of implantation of ectodermal cells in spinal cord during surgery or spinal procedures like lumbar puncture or during trauma to spine (4). Very few cases of post traumatic epidermoid cyst have been reported in literature (5-6). Shengreported a case of spinal epidermoid following burst fracture of lumbar vertebra (7).

The symptomatology in case of spinal epidermoid is non-specific and confusing. Patients generally present

with non-specific features of numbness, weakness, spasticity, paraparesis of lower extremities and defecation disorders pose challenges in pre-operative diagnosis. Differential diagnosis in such cases include ependymomas, metastasis, astrocytomas and dermoid cysts. MRI is useful in differentiating epidermoid from ependymoma, astrocytoma and metastasis. A histopathological examination is necessary to confirm the diagnosis of dermoid cyst.

Intra operatively epidermoid can be ruled out by its gross appearance. Epidermoid cysts are grossly pearly white cysts filled with characteristics keratinous content. Total surgical excision is treatment of choice for epidermoid cyst but sometimes it is difficult to remove cyst in toto due to adhesion of capsule to spinal cord and nerve roots. In such cases a sub total excision of cyst is done. Recurrence of spinal epidermoid is not uncommon after incomplete resection. Fleming reported a case in which he described recurrence of epidermoid cyst seven times at the same location (8), cases with symptomatic reoccurrence should be retreated with surgery but surgery is often difficult due to formation of scar tissue (9). Delayed postoperative haemorrhage is seen as a complication of spinal epidermoid (10). Multiple relapse of epidermoid cyst have been satisfactorily treated in a case with radiotherapy. Recurrent cases can be managed by radiotherapy but is not used routinely in recurrent cyst cases, this modality of treatment is reserved for cases who refuse surgery or are inoperable due to medical reasons.

### CONCLUSION

Spinal epidermoid are rare, recurrence is rare but can occur before considering it as a case of reoccurrence complications associated postoperatively with epidermoid must be evaluated. As in our case it was delayed postoperative haemorrhage. MRI is helpful in arriving at the diagnosis. Surgical removal of cyst is treatment of choice.

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