

Case Report

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Infected Dermoid Cyst of the Posterior Fossa: Case Report

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Introduction

Intracranial dermoid cysts are a rare congenital benign neoplasms, they account for only 0.1%-0.7% of all intracranial tumors [1]. They arise from inclusion of ectodermal elements within the neural tube during its closing between the third and fifth week of embryonic development [2]. Patients with a posterior fossa dermoid cyst and an associated dermal sinus may develop bacterial meningitis or abscess formation of the dermoid itself [3]. Here in, we present a case of dermoid cyst with occipital dermal sinus, complicated by abscess.

Case Report

A 5-year-old girl with an unremarkable medical history was admitted to pediatric unit for 1 month history of occipital headache, and 2 weeks of neck stiffness. Physical examination revealed ataxia,

a temperature of 38.1°C, and also a small dermal orifice in the midline posterior fossa without pus. The result of routine blood examination was normal CT scan showed a large cystic mass in vermis, higher attenuation on CT than CSF, without contrast enhancement.

The diagnosis of dermoid cyst was suspected, the patient underwent a total excision, through a suboccipital approach, after opening the dura, we found an encapsulated cystic mass with hair and purulence contents. Pathologic examination revealed a dermoid cyst The culture of the discharging material revealed *Staphylococcus epidermidis*.

Followed by systemic antibiotic therapy with a good outcome (Figure 1 & 2).

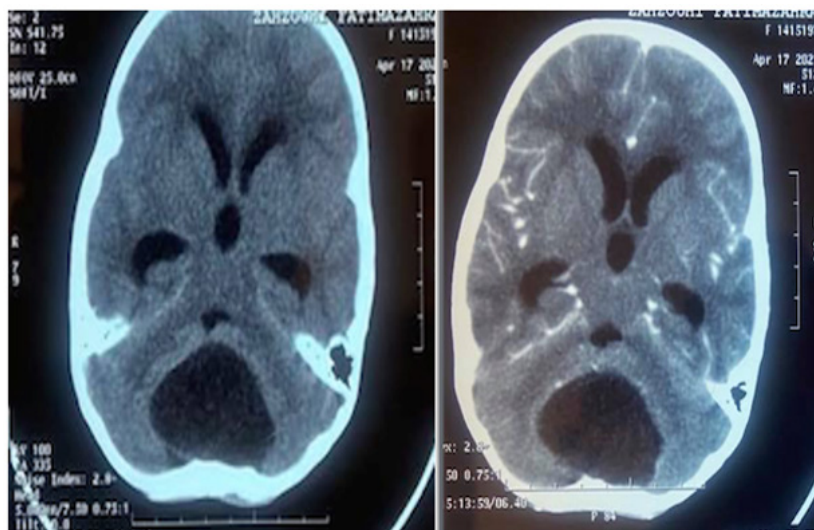


Figure 1: CT scan showing a cystic lesion of the posterior fossa (on the left) without enhancement after injection (On the right).

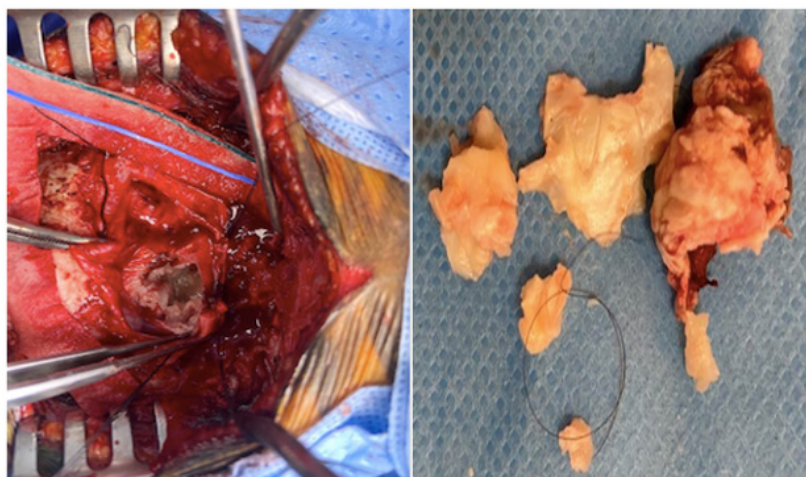


Figure 2: On the left Intra-operation photo showing the purulence content. On the right, image showing the removed contents

Discussion

Intracranial dermoid cyst is a congenital benign neoplasm that grows slowly as a result of progressive epithelial desquamation and gland secretion within the cyst [4]. It accounts for 0.1%-0.7% of all intracranial tumors, they mostly occur in the posterior fossa, particularly in the midline position in the vermis or adjacent meninges [3]. The development of those lesions is associated with a defect of closure of the neural tube in the third to fourth week of embryonic life frequently associated with dermal lesion, A neurocutaneous fistula can be the portal entry, micro-organisms may travel into the cyst with potential risk of deeper suppurations. The clinical presentation may be increased intracranial pressure, cerebellar syndromes, or meningitis sometimes a bone defect may be palpable [5,6].

The pre-operative diagnosis is possible by using CT scan and MRI. CT scan shows a low-density mass with values of fat present in these tumors [7], the surrinfecation of the cyst causes enhancement. Microsurgical resection of the tumor is the treatment of choice for dermoid cysts [4,5]. Total removal was not always performed because of the firm adhesion of the tumor capsule concerning cerebellar abscesses, the choice of treatment depends on the clinical status of the patient, as well as on the size, location, and the presence or absence of the capsule [5,8].

There have been very few publications about the long-term follow-up of dermoid cyst patients. No recurrence of a posterior fossa dermoid cyst after surgery has been reported in the literature. Hashmi et al. reported the reappearance of a cerebellar abscess 20 years after excision of a dermoid cyst [9]. In our case the 2 years follow-up showed no recurrence.

Conclusion

Dermoid cyst of the posterior fossa should be considered in all children with occipital skin lesion. Early surgical treatment is necessary to prevent bacterial infection through the dermal sinus.

Acknowledgement

None.

Conflict of Interest

No conflict of interest.

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