

Deepa Makhija, Neha Sisodiya, Hemanshi Shah, Mukta Waghmare

CYSTIC CONGENITAL SCALP INCLUSION DERMOID: A CASE REPORT

Dept of Paediatric Surgery, TNMC & BYL Nair Hospital, Mumbai Central, Mumbai, Maharashtra, India

Abstract

Dermoid cysts are developmental tumours that develop from germ cells displaced between the 3rd and 5th week of embryogenesis. Although dermoid cysts are known to be the most common scalp swellings; cystic congenital inclusion dermoid of the anterior fontanelle is a very rare scalp swelling. It is a benign, slow-growing, non-tender, soft swelling which is covered with intact skin. Ruling out intracranial extension is necessary. Computed Tomography is the investigation of choice for its diagnosis. We describe such a rare case of cystic congenital inclusion dermoid of the anterior fontanelle where the cyst was completely excised.

Key words: Scalp, Cystic, Dermoid Cyst, Inclusion dermoid, Anterior fontanelle

DEV PERIOD MED. 2016;XX,4:287-288

INTRODUCTION

Cystic congenital inclusion dermoid of the anterior fontanelle is a benign, slow-growing, non-tender, soft swelling which is covered with intact skin and accounts for 0.1-0.5% of all cranial tumors [2]. Computed Tomography is the investigation of choice. Characteristic scalloping of the outer table can help to differentiate intracranial extension from extracranial location of the lesion. We report a case of cystic congenital inclusion dermoid of the anterior fontanel where the cyst could be completely excised.

CASE REPORT

A five month female patient presented with the history of scalp swelling over anterior fontanel since birth (Fig. 1). The swelling was gradually increasing in size. There was no history of fever, vomiting, seizures or altered sensorium. Her general and systemic examination was normal. Local examination revealed a firm, non-tender, non-pulsatile, non-compressible swelling over the anterior fontanelle. There was no bruit over the swelling, transillumination test was negative and the skin over the swelling was healthy and covered with normal hair. Computed tomography (CT) showed an extracranial homogenous hypodense midline swelling, overlying and covering the anterior fontanelle (Fig. 2). The patient underwent total excision of the swelling. The swelling was found between the galea aponeurotica and pericranium (Fig. 3 and Fig. 4). There was no intracranial extension. It was filled with clear fluid. Histopathology revealed a dermoid cyst. The postoperative course was uneventful.

DISCUSSION

Congenital inclusion dermoid cysts are developmental tumors that develop from germ cells displaced between the 3rd and 5th week of embryogenesis. The ectoderm folds into the neural tube and lies along the midline at the site of neural groove closure [2]. On histopathological examination, they have a fibrous capsule, lined by squamous epithelium and contain clear fluid with some adnexal appendage structures (i.e. hair follicles, sebaceous and sweat glands). Usual presentation is at birth as a soft, fluctuant, non-pulsatile, non-tender mass (which is covered by normal skin) over the anterior fontanelle. These cysts arising in the bones of the calvaria develop from inclusion material that proliferates within the bone, causes gradual absorption of the adjacent bone, and produces a well defined area of bone destruction [3].

The differential diagnosis includes sebaceous cysts, lipomas, hemangiomas, anterior meningoencephalocele, cephalhematoma, subgaleal hematoma, lymphangioma, sinus pericranii and abscess [4]. Skull radiographs can show the soft tissue shadow over the anterior fontanel and associated erosion and flattening or depression of the skull bones with sclerotic margins. Characteristic scalloping of the outer table of cranium on neuroimaging can help to differentiate intracranial extension from extracranial location of the lesion [1]. Computed tomography scan is the investigations of choice as it will show the greater details of the lesion and its relation to the underlying structures. Total excision of the subgaleal dermoid is the mainstay of the treatment. Recurrences are rare.



Fig. 1. Clinical photograph of the patient showing the dermoid.



Fig. 3. Intra-operative image of the patient showing the cyst between the galea aponeurotica and pericranium.

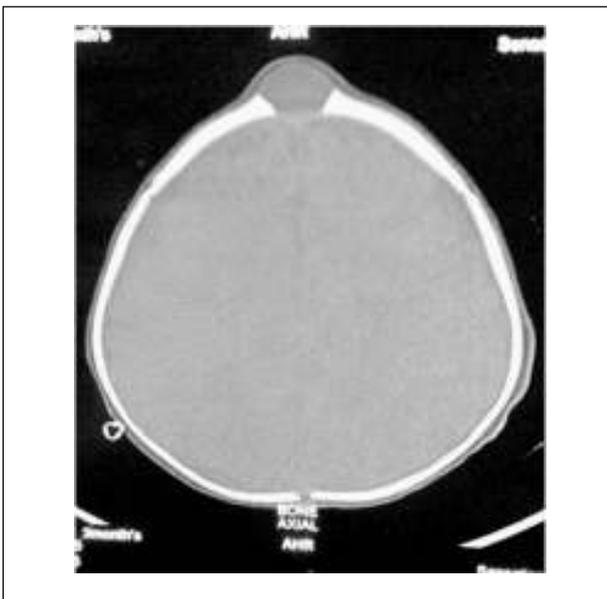


Fig. 2. CT Scan of the patient showing an extracranial homogenous hypodense midline swelling, overlying and covering the anterior fontanelle.

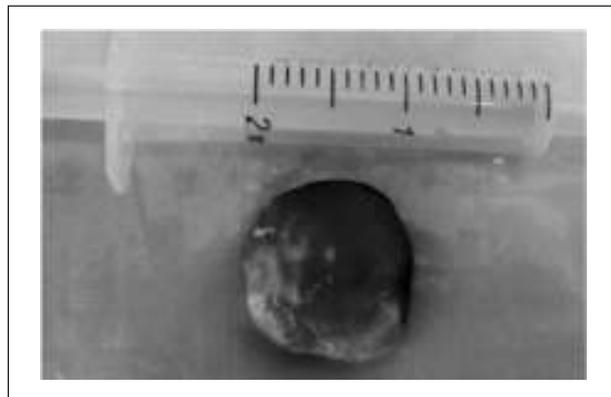


Fig. 4. The excised specimen.

- de Carvalho GT, Fagundes-Pereyra WJ, Marques JA, Dantas FL, de Sousa AA. Congenital inclusion cysts of the anterior fontanelle. *Surg Neurol.* 2001;56:400-405.
- Kumar S, Singh M, Agarwal P. Giant congenital dermoid cyst of scalp. *J Cran Max Dis.* 2014;3:147-149.

Source of Support: Nil

Conflicts of Interest: The Authors declare that they have no competing interests.

Received: 28.09.2016 r.

Accepted: 01.10.2016 r.

Published online

CONCLUSION

Cystic congenital inclusion dermoids of the anterior fontanelle are rare lesions. They usually manifest at birth and diagnosis is by computed tomography. Surgery is the only treatment. The prognosis is very good, recurrence being rare.

REFERENCES

- Agrawal A, Goel S, Trehan S, Mendiratta P, Dureja N. Scalloping characteristics in anterior fontanelle dermoid cyst. *J Pediatr Neurosci.* 2011 Jan-Jun; 6(1):92-93.
- Agrawal A, Santhi V, Reddy V. Subgaleal dermoid cyst of the anterior fontanelle in a child. *The Egyptian Journal of Radiology and Nuclear Medicine* 2015;46:1171-1174.

Address for correspondence:

Deepa Makhija

Dept of Paediatric Surgery, TNMC & BYL Nair Hospital,
Mumbai Central, Mumbai, Maharashtra.

India. Pin: 400008.

Contact No. 022-23027324, Fax No. 0712-6631896

e-mail: deepee.sweety@gmail.com