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Case Report

Double Skull Appearance: A Case Report

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Abstract

Cephalhematoma (CH) is less commonly encountered problem of infancy with an incidence of 1%; however calcified CHs are 5% amongst them. Calcified CHs generally present with cosmetic reasons like skull asymmetry and calvarial mass. Computerized tomography or direct X-rays help in the detection of calcified ones and help in there follow up. Follow up should be considered for cases below 2 years of age since the cranium continues to grow and there appears to be a chance of spontaneous resolution. Surgical intervention should be reserved for cases with neurological deficits or persistent lesions on follow-up. We present interesting case of calcified cephalhematoma in a child. The patient was a 6 months male child with calcified cephalhematoma who presented with cosmetic deformity of the skull but did not have any neurological deficits. CT scan revealed calcification of the hematoma causing a double skull appearance.

Keywords: Cephalhematoma, Calcification, Cosmetic deformity, Hematoma.

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1. Introduction

Cephalhematoma occurs due to hemorrhage from ruptured blood vessels that cross the periosteum of the skull and are common in parietal area. They are frequently associated with traumatic labor such as assisted vaginal delivery using forceps or vacuum extraction although may be seen even after normal delivery [1, 2].

It is a subperiosteal collection of blood and therefore has defined boundaries and needs to be differentiated from caput succedaneum, which are swellings of the scalp. They are found in 1% of newborns and usually resolve spontaneously within a month [1, 3].

In 5% of patients, the cephalohematoma calcifies. If it is large or cosmetically unpleasant, the parents may opt to have it removed. To do so, one merely burs the calcified lesion down to the outer layer of the skull. All bleeding should be judiciously controlled with bone wax and electrocautery. [4] We present interesting case of cephalhematoma, in a 6 months child. Calcification of this hematoma gave a double skull appearance on CT scan.

2. Case Report

A 6 month old, developmentally normal child presented with a hard swelling over the right parietal region (figure 1).

Figure 1: Child with a hard swelling over the right parietal region

At birth, the parents had noticed a soft scalp swelling which was apparently overlooked. Although initially soft, it became progressively less pliable. The child was born by normal vaginal delivery at term.

His neurological examination was unremarkable. A computed tomography (CT) scan showed an additional layer of bone overlying the right parietal area and separated from calvarium by a hypodense area (Figure 2).

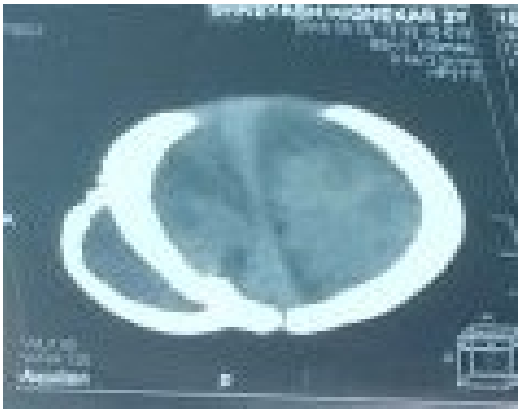

Figure 2: Computed tomography (CT) scan of bone

In view of the relevant history and CT imaging, a diagnosis of OC was made. Parents were reassured of the benign condition and the child is being followed up.

3. Discussion

Cephalhematomas are usually seen in prolonged second stage of labor or instrumental delivery [4]. Usual course of swelling is spontaneous resolution over a week but sometimes the hematoma can get calcified, presenting as hardened mass of the skull.

The collection of blood is subperiosteal in cephalhematoma and it is subgaleal in caput succedaneum. They can cross suture lines and involve large area. A Cephalhematoma causes stripping of the periosteum layer that is limited to the sutures where the periosteum is densely adhered.

Elevated periosteum sometimes calcifies and causes diagnostic confusion with pathologies like intraosseous hematomas, calcified arachnoid cysts, calcified EDH [5]. Radiological studies like CT scan, MRI and even plainand tangential X rays of the skull are helpful in differentiating the above lesions. CT scan of intraosseous hematomas demonstrates isodense areas while cephalhematomas tend to be hypodense to hyperdense.

Surgical resection of cephalhematoma is needed for cosmetic purposes. Radiological follow up can be considered for calcified cephalhematomas, at least for a few months, because even spontaneous resolution has been reported in literature. Spontaneous resolution is explained by the tendency of the cranium under the ossified subperiosteum to grow, which gradually fills the space between the periosteum and cranium [1]. Minor trauma to head was present in our patient's history and it is likely that the cephalhematoma might have become calcified and thus produced an interesting picture of a skull within a skull.

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