SKALP'IN DEV KAVERNÖZ HEMANJiOMU

GIANT CAVERNOUS HEMANGIOMA OF THE SCALP

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Özet

Bu makalede 16 yaşındaki bir erkek çoçuğun skalpında çok nadir olarak görülen bir dev kavernöz hemanjiom olgusu sunulmaktadır. Kavernöz hemanjiomlar, genellikle yüz, boyun ve ekstremitelere ait cilt ve ciltaltı dokusunu ve bazen de skalpı tutar. Bu güne kadar sağ frontoparietal bölgede yerleşim gösteren sadece iki kavernöz hemanjiom olgusu bildirilmiştir. Biz bu makalede skalpın dev kavernöz hemanjiomunun karakteristik özelliklerini ve ayırıcı tanısını tartıştık.

Anahtar kelimeler:*Kavernöz hemanjiom, Skalp*

Summary

This is a report of a very rare case of giant Cavernous hemangioma of the scalp in a 16-year-old boy. Cavernous hemangioma is most common in or beneath the skin of the face, neck, and extremities and sometimes occur in the scalp. Only two case of giant cavernous hemangioma over the right frontoparietal region has been reported. We discuss the characteristics and differential diagnosis of giant cavernous hemangioma of the scalp.

Key words: *Cavernous hemangioma, Scalp*

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Introduction:

Hemangiomas are benign vascular tumors and the most common tumors of childhood. They are subdivided by their histology into capillary hemangiomas and cavernous hemangiomas (1). Giant cavernous hemangioma of the scalp is extremely rare (2). We discuss the characteristics and differential diagnosis of giant cavernous hemangioma over the right frontoparietal region.

Figure 1. *Photography of the Patient Showing a Mass Over the Right Frontoparietal Region.*

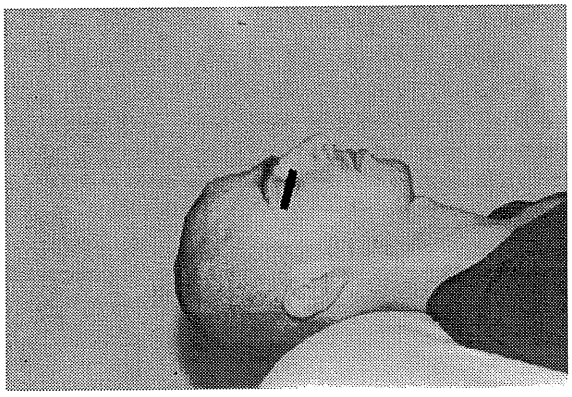
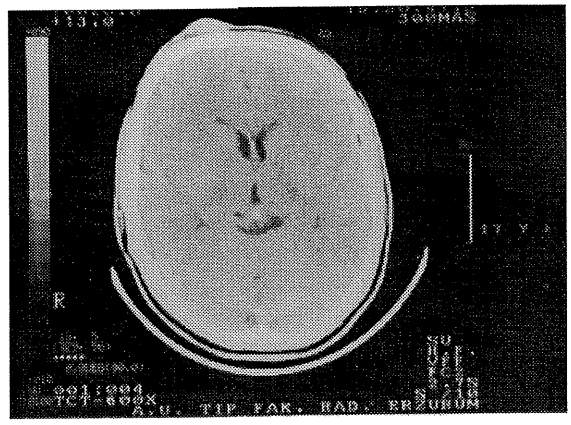


Figure 2. *Computed Tomography (CT) Showing High Dense Mass on Plain Image.*



Case Report:

A 16-year-old boy was admitted to our hospital for evaluation and treatment of a mass over the right frontoparietal region . He was born after a full-term, uncomplicated pregnancy and delivery. Theneonatal period was uneventful. His parent noticed a small reddish mass over the right frontal region measuring several milimeters in diameter soon after he was

Figure 3. *Bone Window CT Shows Trabecular Skull.*

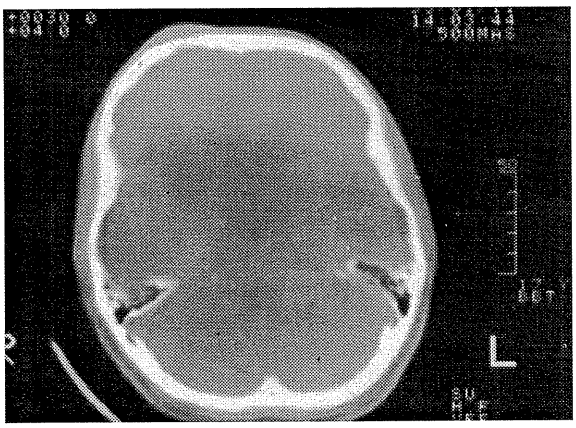
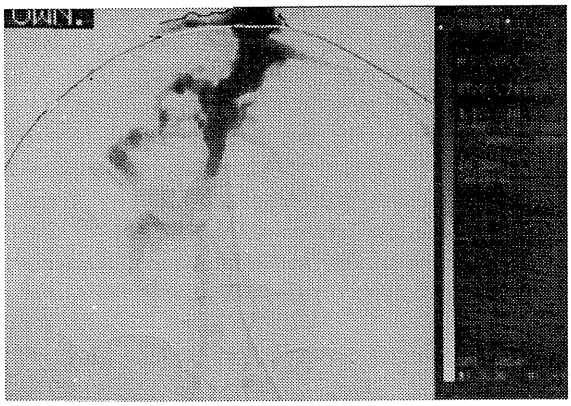


Figure 4. *Direct Injection Study Revealing Internal Trabecular-Like Structures and Draining Veins.*



born. The mass increased in size gradually. Physical examination on admission revealed a soft, nonpulsatile, and slightly movable mass located over the right frontal region measuring 40 x 40 mm in diameter. The mass was covered with reddish skin. It was compressible and became large and dense and seemed to spread to frontoparietal region when the patient was supine pozitioned (Fig.1). Otherwise he was normal both physically and neurologically. A plain film of the skull was normal. Computed tomography (CT) was carried out. The mass was of high density (Fig.2). A magnified CT with bone window revealed that the underlying bony base was trabecular pattern (Fig.3). Digital subtraction angiography was carried out for further evaluation. There was no connection to the superior sagittal sinus. Direct injection of the mass with contrast agent revealed venous drainage to the superficial temporal veins (Fig.4). Preoperatively we diagnosed this mass as a cavernous hemangioma on the basis of these studies. A frontoparietal skin incision was made around the mass. Once the flap was reflected, the mass was located between the galeal membrane and dermis, and there were several venous connections over the frontal bone. This connections were coagulated, transected and each diploid channel obliterated with bone wax. The mass was totally removed while the scalp was kept intact. The pathological diagnosis was cavernous hemangioma.

Discussion:

Differential diagnosis of a mass lesion at the frontal region is limited. Scalp lesions such as subgaleal hematomas, cephal hematomas, sinus pericranii, lipomas, posttraumatic leptomeningeal cysts and lymphangiomas are often quoted as a differential diagnosis (1,2). Several rare lesions have been noted in the discussion and should be included in the differential diagnosis (3, 4). Vascular disorders of the frontoparietal region are cavernous hemangioma, capillary hemangioma, transcranial venovenous shunts and trancranial arteriovenous fistulae. The diagnosis of these particular masses depends largely on history and physical examination. The location of the mass itself greatly limits the differential diagnosis (5, 6). Giant cavernous hemangioma over the right frontoparietal region is extremely rare. Only two cases of giant cavernous hemangioma over the right frontoparietal region has been reported in English literature (7). Ancillary studies such as plain X-rays, ultrasound, CT scanning are useful in further limiting the possible diagnosis. Together with the clinical features of nonpulsatile compressibility and painles soft character, angiography seems to be a cardinal diagnostic factor (5,6). In this case, the radiological and operative findings were compatible with a cystic vascular lesion. The irregular faint staining and patchy venous pooling present in this case strongly suppported the diagnosis. The cavernous hemangioma offers no threat of rupture, and hardly indicates progressive neurological defisit. They are potentially dangerous in the event of scalp lacerations, but only to the extend that they may form the anatomic basis for air emboli, at most a very theoric chain of events. They are, however, unslight and often frighten the parents. Regarding

treatment, spontaneous regression sometimes happen (8), but in view of a possible disastrous bleeding, total excision of the lesion is in general treatment of choise.

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REVIWER'S COMMENTS

I appreciate having the oppurtunity to comment on this report by Dr.Tüzün and colleagues. They present a case with giant cavernous hemangioma of the scalp. Although they have quoted precious information, some deficiency of this report belong to my opinion. For this reason, I complete the missing parts with following informations.

Hemangiomas encountered the commonest tumors in infancy and childhood are vascular neoplasm, as apposed to congenital malformations (1). These lesions show a 5:1 female predominance and are present at birth in 30 per cent of cases, with remaining 70 per cent appearing in the first few months of life (2). The cavernous hemangioma is a capillary hemangioma variand located deeper within the dermis in the subcutaneous tissues. It has large blood-filled spaces lined by a single layer of endothelial cell surrounded by fibrosis of varying thickness. The cavernous hemangioma usually occurs about the head, neck, and face; however, locations in all parts of the body have been reported (3-8). Therefore, the lesion of presented case has not any sipecial feature from the point of view of localization.

Clinically, the lesions appears as a large, prominent subcutaneous mass at or shortly after birth and usually undergo a period of rapid growth in first 6 months of life (1,3). It has a soft cystic consistency and a rose-blue to bluish-red coloration (3). The proliferative phase is generally follwed by spontaneous gradual involution, beginning at about 1 year and continuing to complete resolution by age 7 or 8 in 95 per cent of patients (1,3). Cavernous hemangiomas are composed of large venous spaces with slow flow. The true anatomic extent is often grater than would be expectet by clinical examination (1). The lesion of the case reported by Tüzün et al was described as " giant ", whereas it was emphasised that the lesion was measured 40x40 milimeters in size.

In presented report, authors quoted namely the scalp lesions as the differential diagnosis of cavernous hemangioma of scalp, but they did not point out how the differential diagnosis would be. Although, it is important to investigate the relation ship bedween the lesions and surrounding structures. In such cases magnetic resonance imaging may provide the beneficial informations. The best indication seem to be hemangiomas for adjunctive use of magnetic resonance imaging. The venous pouches, ciharacteristic of this type of lesion, cause elevated signal intensity, well seen on the T2-weighted images. Excellent fat and muscle differentiation with magnetic resonance imaging allows appreciation of the tepth of extension of these lesions and their limitation. Magnetic resonance imaging represents an important complementary study in differential diagnosis bud does not replace other studies (9). The conventional assesment of cutaneous cavernous hemangiomas by venography, arteriography, ultrasonud, computed tomography or magnetic resonance imaging is usually satisfactory and sufficiend in show the extent of the lesion or its feeding and draining vessels (10). For this purpose color Doppler and direct puncture venography have been used in recent years (10,11).

Treatment options include surgical resection and, more recently, direct injection of sclerosing agents (1). The treatment for small cavernous hemangioma may be simple local excision if crosure can be obtainend. Some authors have also reported that the resolution of the acutely expanding cavernous hemangioma can occur with steroid therapy (3). Although steroids, chemotherapy, embolization, radiation, and surgery have all been used with short-term beneficial, sometimes long-term side effects have been ungnown.

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