Giant Epidermal Cyst of the Occipital Area

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Epidermal cyst is the most commonly observed cutaneous tumor. It usually involves the scalp, neck, face, back, and trunk (1). Epidermal cysts are usually elastic with variable degree of hardness and the skin above the lesion is unaffected, with punctual fistula orifice visible in its central part. The pathophysiology of an epidermal cyst is connected with the occlusion of follicle or sebaceous glands’ orifices, developmental defects of the sebaceous duct, or subdermal implantation of epidermal cells following a penetrating injury or inflammation (2). The cyst containing keratin and purulent exudates produced by epidermal lining with granular layer and/or by bacteria is often described as atheroma. A commonly seen epidermal cyst is usually a slow-growing tumor of a diameter of 1-2 cm. Bigger ones, with a diameter of more than 5 cm, have rarely been reported in the casuistic literature.

In our study we present the case of a giant epidermal cyst localized in the scalp of the occipital area, diagnostic problems and therapeutic proceedings.

CASE REPORT

A 62-year old patient presented to the Plastic Surgery Outpatient Clinic because of the tumor of the occipital area (fig. 1). During the medical interview she reported that the tumor appeared in her early childhood (when she was about 3 years old) and it gradually enlarged, and when she was in her forties it started growing rapidly. Before consultation the patient had not received any treatment and reported that about one year earlier she was referred by the general practitioner to the general surgeon for consultation. She was then qualified for the excision of the lesion. Basic
investigations (blood count, coagulation and biochemical tests) showed no deviations and computer tomography imaging (CT) was performed. CT revealed cystic extension of subarachnoid space up to 2 cm in the area of confluence of sinuses and lack of other pathological changes within the brain. In the occipital area in the subcutaneous tissue a homogeneous lesion sized 6 x 7 cm, of density 10 J.H. was described. A slight impression in the bone of the skull cap was also observed (fig. 2a, b). The tumor was suspected to be lipoma. During hospitalization a neurosurgical consultation was performed, which revealed that the surgical removal of the tumor may cause changes in blood supply of the anatomical structures within the brain. Eventually the patient was discharged the next day with recommendation of consultation in plastic surgery clinic. The patient was admitted to the Plastic, Reconstructive and Aesthetic Surgery Clinic for the diagnosis and removal of the tumor. The physical examination revealed a tumor of the occipital area sized 8 x 10 cm, tender and painless; the skin over the tumor remained unchanged. Neurosurgical consultation was conducted, during which a CT scan analysis was performed revealing no connection between the tumor and intracranial structures, so effect on the intracranial circulation after removing the lesion was excluded. The surgery was performed under general anesthesia. Due to the difficulties with making the initial diagnosis, at first the tumor was pricked in order to exclude the possibility of vascular lesion and no liquid content was obtained. Incision of the skin was performed and after visualization of the tumor capsule preparation started. During the preparation a slight damage of the tumor capsule occurred, which allowed the initial diagnosis of the atheroma. The lesion and its capsule were totally excised and the impression on the occipital bone which remained after the removed sebaceous cyst was observed (fig. 3). Local skin plasty was performed and the wound was closed with Redon’s drain left. The excised tumor was submitted for histopathological examination. Pathological diagnosis was consistent with thin-walled cyst sized 8 x 7 x 5.5 cm, and the microscopic image revealed sebaceous cyst with giant cell granuloma. The patient was discharged from the hospital on the 5th day after the surgery for further medical ambulatory care. She presented to the Outpatient Clinic for follow-up examination 3 and 6 months after the surgery and long term result was assessed as very good – due to the localization the scar was invisible (fig. 4).

**DISCUSSION**

In the literature rare descriptions of giant epidermal cysts of face, neck, presternal area, buttock, penis and forefoot can be found (2 – 6). Kim et al. described epidermoid cyst of the posterior neck of 8 cm in diameter, while Baek et al. presented an unique case of giant facial...
epidermal cyst sized 15 cm (5, 6). Gasmi et al. reported presternal giant epidermal cysts in two children. The authors pointed on diagnostic difficulties caused by these lesions and that ultrasonographic and magnetic resonance imaging investigations facilitate accurate diagnosis (3). In the casuistic literature descriptions of epidermal cysts that developed in cranial diploe can be found (7, 8, 9). A case of a giant intradiploic epidermal cyst of the occipital bone with intracranial extension, which may have occurred after resection of an intradermal melanocytic naevus of the skin in the same location, was described (7). Cho et al. presented a case of intradiploic epidermoid cyst with perforation of the dura and brain parenchymal involvement, which was clinically diagnosed as a subcutaneous mass on the left frontoparietal scalp. Magnetic resonance imaging showed a destruction of the skull with penetration of the dura and communication with the intracranial structures (8).

In conclusion, it can be stated that although epidermal cyst is a slow-growing benign tumor, it can cause diagnostic difficulties, especially when located in the scalp area and when there is a possibility that cranial bones and even intracranial structures are affected by the cyst. Imaging techniques like computer tomography, magnetic resonance or ultrasonography are crucial to determine if the cyst contacts intracranial structures.

REFERENCES