

Understanding Lipoma of Occipital Region - A Detailed Case Analysis

Abstract:

Maxillofacial surgeons rarely encounter scalp lipomas in their clinical practice. These may be post traumatic or associated with other factors. Mostly of mesenchymal origin, only 13% originate in head and neck region. We present here a post traumatic scalp lipoma in occipital region which was considerably large in size. The report highlights the current management and treatment modalities for their management and role of maxillofacial surgeons in treating such cases.

Key-words: Scalp, Lipoma, Benign Tumors,

Introduction:

The ordinary lipoma is the most common neoplasm of mesenchymal origin. Just 13% of them originate in the head and neck area, while the majority of them arise in the posterior neck subcutaneously. The anterior neck, infratemporal fossa, oral cavity, throat, larynx, parotid gland, and scalp are a few rare locations. Clinically, lipomas might be mistaken for other benign tumors; however, in almost all cases, a CT scan yields a definitive diagnosis.

Histopathology and fine needle aspiration cytology can aid in determining the tissue diagnosis. Mature adipose cells devoid of cellular atypia make up lipomas under the microscope. The soft, nodular mass with a smooth surface that may be sessile or pedicled may indicate that this lesion is encapsulated.

Case Presentation:

A male patient, age 45 visited our institute with swelling at the back of his scalp. History revealed that the swelling began as a tiny hazelnut after trauma due to fall and grew over the course of five years. In the occipital area, a big, movable lump measuring 5×5 cm was seen during the patient's general medical examination. The surface consisted of normal looking skin of the near-alopecic scalp with no discolouration, cicatrization or punctum. The mass was non-pulsatile and non-tender on palpation.

The patient's MRI revealed a mass of 5×5 cm in the occipital region that was not adhered to the adjacent bone structure, causing a thickening of the scalp. A provisional diagnosis of benign lipoma was made and prompt excision under local anesthesia was performed. The lesion was removed en bloc alongwith the capsule. Hemostasis was achieved and suturing done and pressure bandage was applied. Sutures were removed after 10 days with satisfactory healing of the wound. There was no complaint and complication in the post operative healing phase. Histopathological examination of excised mass revealed the benign soft tissue tumor- LIPOMA.

Discussion:

Lipomas are uncommon in the head and neck area (only 13%) and are benign tumors of mesenchymal origin. Lipomas usually show up clinically as movable, soft, solitary, slow

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growing, painless subcutaneous nodules without epidermal alteration. A distinctive “slippage sign” can be produced by gently removing the fingers from the tumor's edge.

There is a strong attachment between the capsule and the surrounding bone and soft tissue. The size and adhesion to the surrounding tissues may make resection challenging, notwithstanding the low recurrence rate. Eighty percent of the lipomas are smaller than 5 cm while some might be larger than 20 cm and may weigh a few kilograms.

Large lipomas that impinge on nerves can produce pain, albeit they are typically asymptomatic. Women are typically affected, with about 80% appearing as a single lesion. On the other hand, young men are more likely to have several lesions. Different types and quantities of mesenchymal components are present in the tumor in the documented lipoma variations.[1]

About two-thirds of lipomas exhibit genetic abnormalities, however the exact cause of is unknown. Apart from the potential for a genetic connection, another theory suggests that stress to a region directly increases the risk of developing lipomas. Studies indicate that the development of adipose tumors is a post-traumatic occurrence that occurs after a direct impact on that soft tissue region.[2]

Apart from the previously mentioned risk factors, obesity, alcohol misuse, liver illness, and glucose intolerance are other potential associations that could result in lipomas.

Adiposis dolorosa, Gardner syndrome, multiple inherited lipomatosis, and Madelung disease are among the rare conditions that lipomatosis can occasionally be linked to. Angiolipoma, chondroid lipoma, lipoblastoma, myolipoma, pleomorphic lipoma/spindle cell lipoma, intramuscular and intermuscular lipoma, nerve lipomatosis, tendon sheath and joint lipoma, lipoma arborescens, multiple symmetric lipomatosis, diffuse lipomatosis, adiposis dolorosa, and hibernoma are some of the less common types of lipomas.[3,4]

In addition to a physical examination, radiological assessment is necessary for the evaluation of the nature of the lipoma and surgical planning. Connection with the surrounding tissues and bone can be evaluated by computed tomography (CT) and magnetic resonance imaging (MRI). In the case of suspicious, large lipomas fine needle aspiration biopsy can be performed prior to surgery.[5,7]

Occipital or cervical giant lipomas are rare. Patients usually seek medical attention due to malignancy or cosmetic problems. Certain positions of the body and/or some daily physical activities may be restricted due to the size of the tumor. Lipomas that are large, painful, and cause cosmetic problems should be operated on following good preoperative planning.

Differential diagnosis may include the following:

Hibernoma: A rare tumor that differentiates into brown fat. About three-quarters of instances occur in the back of the neck or interscapular region. Hibernomas are often painless, grow slowly, and are frequently big (5–10 cm). Local excision is curative, and histology confirms the diagnosis. Among the fibro-lipoma variations that are more likely to affect the head and paraspinal region are nuchal fibroma and nuchal fibrocartilaginous pseudotumor. In addition to fibrolipoma variants other types are: Epidermal Cysts, Solitary Lipoma, Nodular Fasciitis, Fibrous Histiocytoma, Neurofibroma, Myxoma, Myo-fibromatosis And Extra abdominal Fibromatosis and Benign Schwannoma.

Management:

The various techniques used for treatment include intralesional transcuteaneous sodium deoxycholate (associated or not to phosphatidylcholine) injections, intralesional steroids combined with isoproterenol (a beta-2 adrenergic agonist) injections, liposuction of the tumor, or surgical excision.

Surgical excision is likely the most effective method to prevent them from reoccurring, though the encapsulation must also be removed for the most effective treatment and to decrease the risk of reoccurrence. If the decision is made to excise lipomas, then it should be done while the lesions are smaller rather than after they grow larger to reduce the risk of these encroaching on joints, nerves, and blood vessels, thus making the excision more difficult and invasive.

The prognosis for benign lipomas is very good. These are benign entities and carry no risk for malignant transformation. Once these tumors are excised, mainly for cosmetic reasons, they often do not recur. However, it is imperative that the fibrous capsule surrounding the lipoma is entirely removed to prevent recurrence. Our patient didn't report any complication or recurrence in one year follow up.[9]

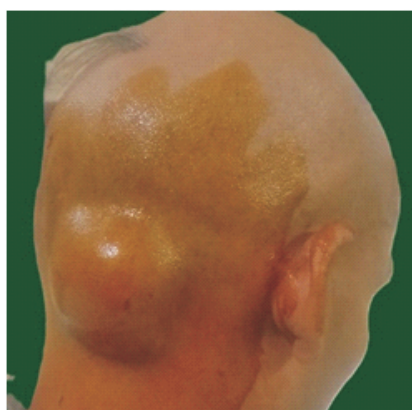


Figure 1: Soft, fluctuant mass measuring 5*5 cm

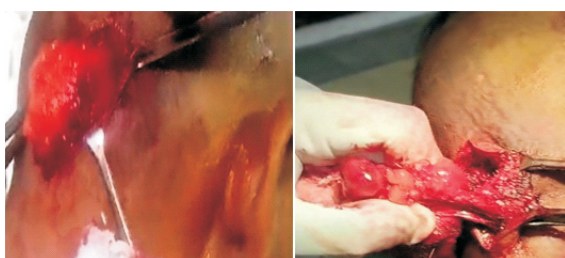


Figure 2&3 : Incision and exposure of mass

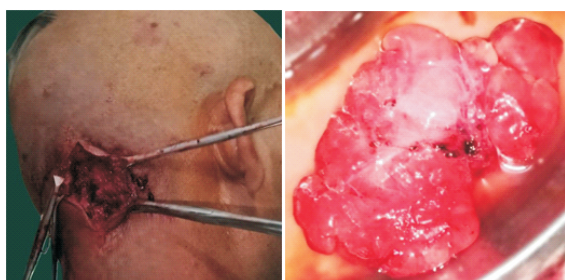


Figure 4 & 5: En bloc excision with capsule



Figure 6: Closure and bandage

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