



# Giant Tarsal Keratinous Cyst Mimicking Chalazion

## Şalazyonu Taklit Eden Dev Keratinöz Kist

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### Summary

Reports on keratinous cysts involving the tarsal plate are very rare. Herein, we present a 69-year-old male patient with a giant tarsal keratinous cyst of the right upper eyelid who was misdiagnosed as chalazion of the eyelid. Interventional case report with cytopathologic correlation. Due to recurrence after the surgery for presumed chalazion, the patient was referred to our clinic for tumor evaluation. In the second surgery, which was performed in our clinic, the lesion was found to have a fine capsule and was totally excised. Histopathologic examination revealed keratinous cyst of the tarsal plate. Keratinous cyst must be considered in the differential diagnosis of tarsal plate lesions, as the curettage of the keratinous cyst might result in multiple recurrences. (*Turk J Ophthalmol* 2013; 43: 138-9)

**Key Words:** Chalazion, curettage, keratinous cyst, tarsal plate, tumor

### Özet

Tarsal plağı etkileyen keratinöz kistine ait sunumlar çok nadirdir. Bu makalede yanlışlıkla sağ üst göz kapağındaki dev tarsal keratinöz kistine şalazyon tanısı konulan 69 yaşındaki erkek olguyu sunuyoruz. Sitopatolojik doğrulama eşliğinde olgu sunumu. Şalazyon sanılarak cerrahi uygulandıktan sonra rekürrens gösteren olgu kliniğimize tümör açısından değerlendirilmek üzere yönlendirildi. Kliniğimizde uygulanan ikinci cerrahide lezyonun kapsüllü olduğu izlendi ve total olarak eksize edildi. Histopatolojik inceleme sonucunda lezyonun tarsal plağın keratinöz kisti olduğu saptandı. Keratinöz kistlerin küretajı multipl rekürrenslere neden olabileceği için, tarsal plak lezyonlarının ayırıcı tanısında keratinöz kist mutlaka göz önünde tutulmalıdır. (*Turk J Ophthalmol* 2013; 43: 138-9)

**Anahtar Kelimeler:** Şalazyon, küretaj, keratinöz kist; tarsal plak; tümör

### Introduction

Intratarsal keratinous cysts of the meibomian gland are acquired rare lesions that are recently described. Jakobiec et al.<sup>1</sup> reviewed meibomian gland lesions and they concluded that the reported intratarsal epidermal inclusion cysts in older individuals should be considered as intratarsal keratinous cysts.<sup>2</sup>

Herein, we report a 69-year-old male patient with tarsal keratinous cyst of the right upper eyelid who was misdiagnosed as chalazion.

### Case Report

A 69-year-old male patient was referred to our clinic for recurrent chalazion. He had a history of chalazion curettage elsewhere, 6 months earlier. When interrogated, it was found out

that the lesion was present for 6 months and did not disappear with medical treatment (topical antibiotics, topical corticosteroids, systemic doxycycline). Two months following the surgery the chalazion-like lesion recurred larger with no inflammatory signs. On examination, the right upper eyelid was ptotic due to a firm lesion that was fixed to the tarsal plate (Figure 1A). The lump was nonfluctuant, the overlying skin was in normal color and freely movable. Eversion of the eyelid revealed signs of a subsurface intratarsal lesion with pale yellow bulging (Figure 1B). Ocular examination was otherwise normal. Due to recurrence of the lesion after initial surgery, total excision of the lesion through a lid crease incision was performed. The 2 x 2 x 2 cm mass was found to have a fine capsule and was gently excised as a whole. The defect was repaired primarily. The histopathologic examination revealed a cyst decorated with squamous epithelium devoid of keratohyalin granules (Figure 2 A,B). The innermost part of lining cells was

densely eosinophilic like a cuticular layer. Keratinous material was relatively compact compared with epidermal cyst content which is more loosely woven. Immunohistochemically, carcinoembryonic antigen (Neomarker, clone: COL-1) stained the luminal layers of the cyst along with luminal keratin, cytokeratin 5/6 (Zymed, clone: D5/16B4) stained the basal and suprabasal region along with luminal keratin (Figure 2 C,D). These morphologic and immunohistochemical findings were compatible with keratinous cyst of the meibomian gland. No recurrence after excisional biopsy occurred during the follow-up of 24 months (Figure 1C).

### Comment

An acquired benign cyst in the conjunctival sac which is filled with keratin was first described by Mansour et al., whereas the first case of a palpebral keratinous cyst was reported by Jakobiec et al.<sup>3,4</sup> The recent 2010 article by Jakobiec et al. awakens the need for a double-check for all presumed acquired

epidermal cysts in older individuals.<sup>1</sup> Similar to the description in Jakobiec et al.'s<sup>1</sup> report, our patient had a clearly visible noninflamed painless lump on the cutaneous aspect of the upper eyelid. The lump was firm, nonfluctuant, and the overlying skin was in normal color. The palpation of the mass proved that the lesion was fixed to the tarsus, whereas the overlying skin was free. Eversion of the eyelid revealed signs of a subsurface intratarsal lesion with pale yellow bulging.

The differential diagnosis of an upper eyelid mass in an adult includes chalazion, dermoid cyst, epidermoid cyst, papilloma, granuloma pyogenicum, nevus, hemangioma, sebaceous gland carcinoma, keratinous cyst of the meibomian gland and several other less frequent entities.<sup>1-5</sup> Chalazion is the most common diagnosis of a mass that appears to involve the tarsus and is typically treated by incision and curettage. Use of this surgical approach for a keratinous cyst, however, can lead to multiple recurrences due to incomplete cyst excision.<sup>1</sup> It is not possible to clinically identify epidermal cysts and keratinous cysts. However, pathological examination reveals that the keratinous content in epidermal cysts is loosely woven but compact in keratinous cysts. Additionally, immunohistochemically carcinoembryonic antigen and cytokeratin 5/6 stain along with luminal keratin in keratinous cysts, where in epidermal cysts do not.<sup>1,3,4</sup> The major discrimination of keratinous cyst from epidermal cyst is the higher potential of recurrences and the need for more aggressive surgical repair in the management.<sup>1,3,4</sup>

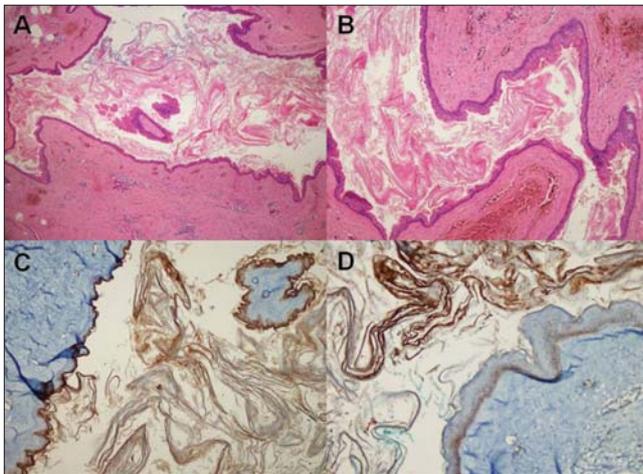
In summary, in the presence of history of unsuccessful chalazion curettage, besides sebaceous gland carcinoma, keratinous cyst should also be considered in the differential diagnosis. Moreover, all curettage materials should undergo histopathological examination for chalazion-mimicking lesions.

### References

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**Figure 1.** A. The protic and swollen appearance of the eyelid. B. Upon eversion of the eyelid, the sub tarsal lesion with bulging is evident. C. Postoperative appearance of the patient.



**Figure 2.** A. General appearance of the cystic lesion. HEEx40. B. The cyst wall composed of squamous epithelium with densely eosinophilic innermost layer and a relatively compact keratinous material. HEEx100. C. Anti-CEA positivity at the luminal layers of the cyst is evident. Anti-CEAx40. D. Anti-cytokeratin 5/6 positivity at the basal and suprabasal region of cyst. Anti-cytokeratin 5/6 x100