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A CASE REPORT OF AN INTRADERMAL NEVUS ON THE EYELID MARGIN

Ophthalomology

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ABSTRACT

Benign eyelid lesions are common, ranging from a simple chalazion, lentigo, various cysts, and glandular inflammation to nevus. Dermal nevi are the commonest and do not transform into malignant variants. We present here a case of a 23-year-old female patient presented with a brown to black pigmented lesion on her right lower lid temporally which she noticed five years back and had persisted since then. A provisional diagnosis of lid nevus was made. The patient was planned for wedge resection under local anaesthesia. Patient underwent an uneventful surgery in which the mass was excised and the lid defect was closed. There was complete removal of the mass, and the patients achieved good cosmesis with the return of normal lid function.

KEYWORDS

dermal nevi, excision, eyelid, nevus

INTRODUCTION

Benign eyelid lesions are common, ranging from a simple chalazion, lentigo, various cysts, and glandular inflammation to nevus. Nevus is made up of nevus cells, which are undifferentiated melanocytes, being larger in size. The nevi cells may be pigmented or non-pigmented. The cells may be in the epidermis or dermis or at the junction of the dermis and epidermis [1]. Dermal nevi are the commonest and do not transform into malignant variants. Small nevi do not require treatment; however, the larger ones are treated by shaving or wedge resection of the lid [1]–[3].

We present here a case of a 23-year-old female patient who presented with a brown to black pigmented lesion on her right lower lid.

Case Presentation

A 23-year-old female patient presented with a brown to black pigmented lesion on her right lower lid temporally which she noticed five years back and had persisted since then.

On ocular examination, her best corrected visual acuity was 6/6, orthophoric in primary gaze, and extra ocular movements were full. There was a single, painless, pigmented, well-circumscribed sessile mass measuring (9mm×3mm×4mm) in the lateral 1/3rd of the right lower lid (Figure 1).

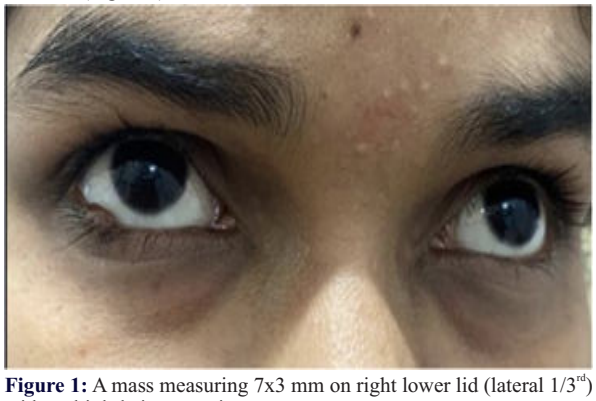

Figure 1: A mass measuring 7x3 mm on right lower lid (lateral 1/3rd) with multiple hair emanating

The mass was firm and non-tender, the surface of the mass was irregular, and multiple hairs emanated from the lesion. No abnormal vessels or ulcerations were seen on the skin over the mass. The rest of the anterior examination was normal. The posterior segment examination was nondescriptive. The left eye examination was normal. No other similar mass was present anywhere else in the body. There was no lymphadenopathy.

A provisional diagnosis of lid nevus was made. Due to the cosmetic disfigurement and excessive tearing, an excision biopsy of the mass was planned. The patient was planned for wedge resection under local anaesthesia.

Preoperative blood investigations and pre-anesthetic check-up was done and informed consent was taken prior to the surgery.

A full-thickness excision of an eyelid mass involving the anterior lamella, posterior lamella, and intermarginal strip, was performed via a pentagonal incision. The excised tissue was closed using a vertical mattress suture technique with 6-0 Vicryl through the tarsus, followed by 6-0 simple interrupted sutures through the anterior tarsus, which are critical for achieving favorable cosmetic results. The skin was closed with 6-0 non-absorbable Ethilon. Key considerations included ensuring proper alignment of the lash line and preventing eversion of the lid margins and contractures.

Patient underwent an uneventful surgery in which the mass was excised and the lid defect was closed by direct apposition of the margins suturing in layers. The excised tissue (9mm×3mm×4mm) was sent for histopathological examination. The histopathological examination, (H & E staining,) showed type A nevi cells in the superficial dermis with pigmented epithelioid cells with well-defined cell boundaries, abundant eosinophilic cytoplasm containing coarse melanin granules, finely dispersed chromatin, delicate nuclear membrane, and no distinct eosinophilic nucleoli which was suggestive of an intradermal nevus Figure 2.

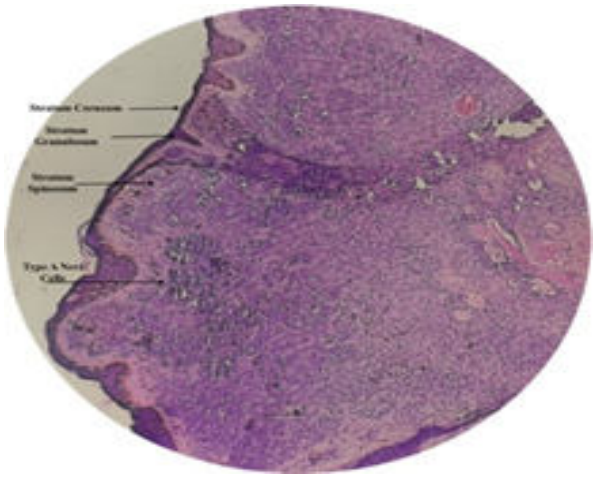

Figure 2: H & E staining showed nevi cells in the superficial dermis

with pigmented epitheloid with coarse melanin granules and no distinctive eosinophilic nucleoli suggestive of intradermal nevus

Postoperatively, the patient was prescribed oral antibiotics and analgesics for 5 days, topical antibiotic drops and ointment for 2 weeks. Skin sutures were removed after 1 week and margin sutures after 3 weeks. There was complete removal of the mass, and the patients achieved good cosmesis with the return of normal lid function. (Figure 3)

Figure 3: A healed lower lid of right eye with successful resection and no scarring

DISCUSSION

Nevus remains a concern due to its progression or similarity to melanoma, though not so in developing countries as India but western countries it carries much significance. The present case showed the case of 23-year old female who presented with nevus. Among previous studies, Nevus has been reported in the age group of 2 years to 92 years [4]–[7], and the presence has been mainly seen in females [4]–[8].

Women are significantly more commonly affected, a phenomenon referred to as gynecotropism. These nevi are typically congenital but can also emerge around puberty or during pregnancy, likely influenced by hormonal fluctuations [9].

Though they remain painless pigmented lesions however due to cosmetic disfigurement patient may feel the need to remove it, as was seen in the present study.

Presence of nevus at the lid margin carries a great cosmetic disfigurement and the cosmesis was improved by wedge dissection under local anesthesia wherein whole of the marks was removed and the patients underwent a complete surgery without any postoperative morbidity.

Among other studies, Custer PL et al [8] reported that patients with nevi underwent superficial excision and cauterization. On follow-up, most of the patients showed improved lash line appearance and quality; however, some still experienced postoperative issues such as trichiasis, redness along the eyelid margin, and residual pigmentation.

In the case report by Gupta S [6], a 65-year-old woman who had large, pedunculated, heart-shaped mass in her right upper lid which caused mechanical ptosis, underwent excision flushed with the eyelid margin. There was normal healing of lid wound margin and no complications occurred. Homer NA et al [2] conducted a case report on 28-year-old men with recurrent right lower eyelid margin lesion, who underwent surgical resection. At the follow-up of 13 months, no evidence of recurrence was observed.

Overall, Nevi can be treated through surgical excision or laser ablation. Using a combination of Er:YAG laser and long-pulsed alexandrite laser is effective in removing small benign melanocytic nevi, with minimal side effects and a low risk of recurrence [7]. In the present case, due to cosmetic issues and location, resection was considered the most appropriate treatment option.

CONCLUSION

This case report presents an intradermal nevus at the eyelid margin treated with wedge resection under local anaesthesia followed by meticulous layered closure, which resulted in excellent cosmetic and functional outcomes without complications. Histopathological confirmation of an intradermal nevus validated the provisional diagnosis. Regular follow-up was advised due to the lesion's size and location to monitor for recurrence. This case report highlights the importance of individualized treatment planning and precise surgical technique in the management of intradermal nevus. Given the substantial size of the lesion, regular follow-up appointments are always recommended to monitor for any signs of recurrence.

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