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Keratoacanthoma of Nasofacial region : Case report

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Abstract

Aim and objectives: To study the case of Keratoacanthoma of nasofacial region to arouse the awareness about the disease.

Materials And Methods: A 22-year-old male patient presented with swelling over the left nasofacial region since one and half months. It was progressive in nature and painless. It was not associated with other symptoms and no history of trauma to the nose or prolonged exposure to sunlight. The tumour was excised completely under local anaesthesia.

Results: HPE Reported solid proliferation of squamous epithelium comprising large mature squamous cells forming a central crater filled with parakeratotic keratin. Keratin cysts were present within the squamous epithelium, which showed mild atypia. The underlying fibrous cellular connective tissue was moderately infiltrated by chronic inflammatory cells. Muscle bundles and lobules of sebaceous glands were also seen. A diagnosis of KA was made.

Discussion KA has been reported in all age groups, with a peak incidence in the 7th decade of life or beyond. It is rare in persons younger than 20 years of age. KA is now regarded as an immunologically well-controlled, low grade squamous cell carcinoma[1]. KA usually regresses spontaneously, surgical excision is the primary treatment nowadays.

Conclusion This highlights the importance of keeping Keratoacanthoma of the nasofacial region in the differential diagnosis of Squamous cell carcinoma and its unusual presentation in the young age group.

Keywords: Keratoacanthoma of nose, Squamous cell carcinoma

Abbreviations: Keratoacanthoma (KA), Squamous cell carcinoma (SCC)

Introduction

Keratoacanthoma (KA) is a common benign epithelial tumour that originates from the pilosebaceous glands [2]. There is rapid evolution and spontaneous resolution over 4 to 6 months[2]. KA usually presents as a solitary nodule with a central keratin plug on the sun-exposed skin of elderly individuals. The aetiology of this tumour is not completely understood; however, exposure to excessive sunlight is associated with its occurrence. Herein, we report a case of keratoacanthoma that occurred in a non-sun-exposed nasofacial region of a 22 year old man. The diagnosis of KA was established after excisional biopsy.

To our knowledge, a very small number of cases of nasofacial KA have been reported.

Case Report

22 years old male patient had swelling over the left nasofacial region since one and half month.

Figure 1

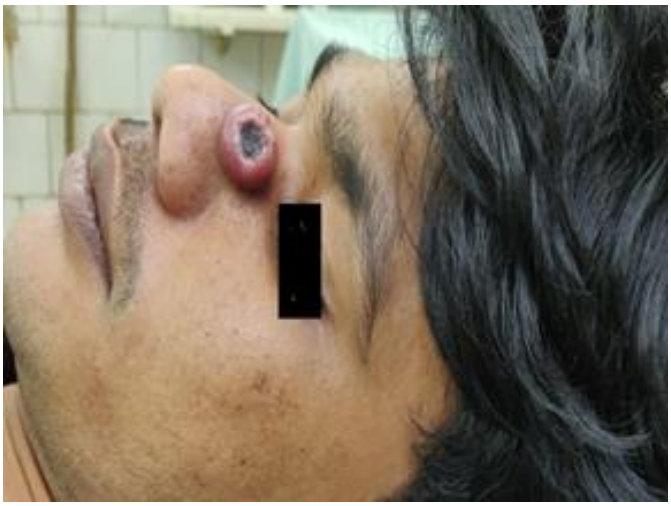

Figure 2

It was progressive in nature and painless. It was not associated with other symptoms and no history trauma to the nose or prolonged exposure to sunlight.

On examination it was non tender, smooth, round, elevated and sessile with well-circumscribed borders. The surface was erythematous and the central portion had a shallow ulcer-like crater with brown and adherent encrustation. It was firm in consistency with no pus discharge. There was no paraesthesia associated with the swelling.

Nasal endoscopy was normal. All routine investigations were normal.

There was no palpable cervical lymphadenopathy.

Diagnosis

The tumour was excised completely under local anaesthesia with minimal bleeding and the incision was closed using vicryl 4.0 sutures. Post-operative recovery was uneventful.

Histopathology

Macroscopy: A mass of pale tissue with a central irregular surface measuring 1 cm in diameter.

Figure 3

Microscopy

It showed solid proliferation of squamous epithelium comprising large mature squamous cells forming a central crater filled with parakeratotic keratin. Keratin cysts were present within the squamous epithelium, which showed mild atypia. The underlying fibrous cellular connective tissue was moderately infiltrated by chronic inflammatory cells. Muscle bundles and lobules of sebaceous glands were also seen. A diagnosis of KA

was made.

The patient reported seven days after the biopsy and favourable healing was observed. There was no sign of recurrence after a follow up of 6 months.

Discussion

KA has been reported in all age groups, with a peak incidence in the 7th decade of life or beyond. It is rare in persons younger than 20 years of age. KA is uncommon in dark-skinned patients. Most cases occur on sun-exposed skin. The face, neck, and dorsum of the upper extremities are common sites.

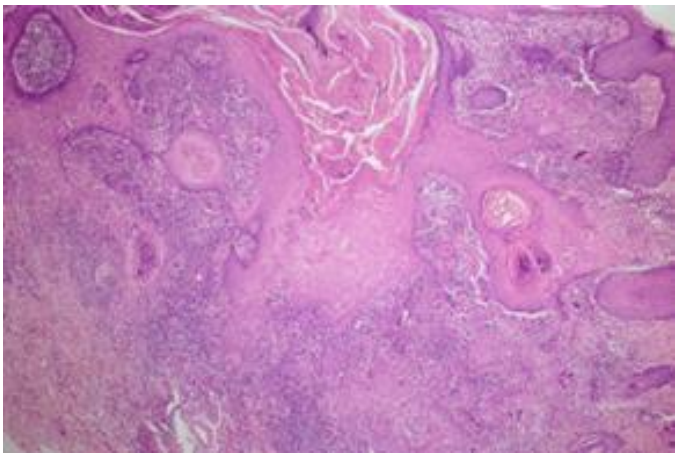

Figure 4

KA was initially considered a benign growth, evidence indicates that it may progress to low grade squamous cell carcinoma. Unlike KA, OSCC microscopically shows considerable cellular and nuclear anaplasia, a pleomorphism with significant mitotic activity. Therefore, it is now regarded as an immunologically well-controlled, low grade squamous cell carcinoma[1]

Sun exposure has a key role in the pathophysiology of KA[3]. In persons with a genetic predisposition, sunlight may activate an oncogene or inactivate a suppressor gene. Other risk factors include tar exposure, immunosuppression, burns, oncogenic chemicals and psoriatic lesions previously treated with psoralen and ultraviolet A therapy, as well as other dermatoses [3 4.]

In recent years, an increasing number of reports have described KA arising at sites of trauma [5]. A study by Miot et al. in 2006 suggested a strong association between cigarette smoking and KA [6.] Their regression is likely to be mediated by activated CD4+ cells and lymphocytes [2].

A usually appears as a solitary lesion, multiple tumours may be found and may be associated with various syndromes like Muir-Torre, xeroderma pigmentosum and nevus sebaceous of Jadassohn[7.] Other multiple lesion variants have also been described such as Ferguson Smith type and eruptive Grzybowski type [8].

The diagnosis can be made on the short history, with a plateau of growth and usually some definite resolution/involution noted by the patient and a central keratin plug and signs of fragmentation.

Differential diagnosis includes actinic cheilosis, keratoacanthoma, squamous cell carcinoma, molluscum contagiosum, basal cell carcinoma; therefore, for a definitive pathological diagnosis, the excisional biopsy must be fully representative of the lesion[9].

Various factors need to be considered in choosing the type of treatment. These include the site, size and number of lesions, recurrence, age and general condition of the patient, competence of the clinician with various therapeutic techniques, aesthetic considerations compatible with complete removal of the growth and patient compliance[10]. Although KA usually regresses spontaneously, surgical excision is the primary treatment nowadays.

Griffiths proposed principles for “watch and wait” management[11]. However, we believe that all suspected lesions should be excised surgically since all lesions do not spontaneously heal and even if they do, residual scar and disfigurement always remains. Other proposed treatments such as cryotherapy, electrodessication, irradiation, 5 FU (5-fluorouracil), curettage, x-ray,

radium implantation, electrocautery, silver nitrate cautery, hydrocortisone and antibiotic ointments and podophyllin but the efficacy of these therapies is unclear [12,13]. Farias et al., recently proposed the treatment of KA with topical photodynamic therapy with methyl aminolevulinic acid (MAL) cream[14]

Conclusion

This case highlights the importance of keeping Keratoacanthoma of the nasofacial region in the differential diagnosis of Squamous cell carcinoma and its unusual presentation in young age groups.

Keratoacanthoma(KA) at times leads to difficulty in differentiation from oral squamous cell carcinoma and other aggressive diseases.

Awareness of this disorder not only by clinicians but also by pathologists might help prevent misdiagnosis of KA and its lesions should alert the physician towards the possibility of cutaneous metastases. It can avoid needless radical surgery.

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