Keratoacanthoma of Lip
Meghanand T. Nayak, Shaleen Chandra, Anjali Singh, Madhusudan Astekar

Abstract
Keratoacanthoma (KA) is a relatively common low-grade malignancy that originates in the pilosebaceous glands. It strongly resembles squamous cell carcinoma (SCC) clinically as well as pathologically. KA commonly occurs on the sun-affected skin, while its occurrence on the oral mucosa is limited. Rare presentation of KA has been reported on upper and lower lip. This paper reports a case of KA occurring on the lower lip of a 40-year-old female which had a unique horn-like presentation.

Key Words: Keratoacanthoma; Horn-like projection; Lower lip; Pseudoepitheliomatous hyperplasia

Introduction
Keratoacanthoma (KA) is a relatively common, benign, self-limiting proliferation of the epithelial component in the hair follicular apparatus called follicular infundibulum.(1) It is also known as "self-healing" carcinoma or pseudo carcinoma.(2) Previously, many pathologists considered it to be a form of squamous cell carcinoma (SCC).(1) It has been noted that around 6% of KA when left untreated has transformed into SCC.(3) KA is commonly found on sun exposed skin, and often is seen on the face, forearms and hands.(4) Intraoral examples have been reported, but are rare and obviously require a different theory to explain their origin. We report a case of 40-year-old female with a horn-like projection on the lower lip.

Case Report
A 40-year-old female reported to authors’ institution with a horn-like projection on the lower lip which was 4-5 weeks old. The lesion started as a nodule on the lower lip at about 0.5 cm from the midline. On physical examination, the lesion was found to be solitary, sessile projection measuring about 1 x 0.5 cm. The colour of the lesion was yellowish and the central area was darker, while the surrounding areas were pale (Fig. 1). Differential diagnoses of squamous papilloma, actinic keratosis were considered and the lesion was excised completely with a clear margin. The post-surgical healing was uneventful and with a minimal scar formation (Fig 2). On histopathological examination of the lesion, a hyperplastic squamous epithelium was seen covering a minimal connective tissue stroma, which was deeply infiltrated by chronic inflammatory cells. A pseudoepitheliomatous hyperplasia of the epithelium was noted and dyskeratosis in the form of individual cell keratinization and keratin pearl were noted (Fig. 3 and Fig 4).

Discussion
KA is a rapidly growing solitary tumour that affects mainly sun exposed areas of light complexion persons of middle age or old.(5) It usually occurs in the age range of 50-70 years and is twice more common in males than females. KA is frequently encountered on the face.(2, 5) Involvement of the lip is very rare and has been reported to be around 8.1% of total KA.(2) Various factors like sunlight, trauma, chemicals, smoking habits and viral agents have been discussed as etiological factors of KA, although sunlight has been accepted as the most possible inducing factor for KA.(6) The role of Human Papilloma Viruses (HPV) usually HPV-11, 26 & 37 subtypes are considered as the cause of the intraoral lesions.(7) KA occurs as a solitary, firm, non-tender, rounded, dome-shaped nodule with a central keratin plug, with margins being raised around central crater like ulcer. It is usually flesh colour or brown-red and is invariably filled with central area of keratin. The development of KA can be explained in three distinct clinical stages, which initiates as a ‘proliferative stage’ followed by a ‘mature stage’ and finally an ‘involution stage’, when the lesion regresses by itself sufficing the name ‘self-healing carcinoma’. (6) Occasionally, KA demonstrates as multiple lesion variant (Ferguson-Smith type) in patients with hereditary background, while Eruptive Grzybowski type manifests as multiple small papules on skin and upper digestive tract.(8) Three rare varieties of KA has also been reported in literature and they are, a) giant keratoacanthoma, b) keratoacanthoma centrifugum marginatum, c) subungual keratoacanthoma. Giant KA that may reach a size up to 9 cm or larger(9); KA centrifugum marginatum(10), that grows at the periphery with central involution may reach a size of 20 cm or more; and subungual KA that affects the nail bed. An interesting case of cutaneous horn occurring on the vermilion border of the lower lip.
has been reported in a black child previously.\(^{11}\)

Our case had a similar presentation with a hornlike projection present on the lower lip, but our lesion was occurring at the centre of the lip. This presentation of the KA is unusually rare and needs to be studied upon. The histopathology of our case was sufficient for us to consider this case as KA rather than anything else.

**Conclusion**

The occurrence of KA as an intraoral lesion is rare but it’s occurrence on lip can be attributed to the exposure of the lip to the sunlight or a possible viral pathology. KA can occur in a few unusual presentations, as was recorded in our case. Although KA tends to involute of its own accord, surgical treatment of KA is required as malignant transformation is seen in few cases.

**Authors Affiliations:** 1. Dr. Meghanand T. Nayak, MDS, Associate Professor, 2. Dr. Shaleen Chandra, MDS, Professor, Dept. of Oral and Maxillofacial Pathology, 3. Dr. Anjali Singh, BDS, Research Fellow, Dept. of Oral Medicine and Radiology, Saraswati Dental College and Hospital, Lucknow, Uttar Pradesh, 4. Dr. Madhusudan Astekar, Oral and Maxillofacial Pathology, Pacific Dental College, Udaipur, Rajasthan, India.

**References**


**Address for Correspondence**

Dr. Meghanand T. Nayak, MDS, Associate Professor, Dept. of Oral and Maxillofacial Pathology, Saraswati Dental College and Hospital, Lucknow, Uttar Pradesh, India.

Email: drmeghanand@gmail.com

Source of Support: Nil, Conflict of Interest: None Declared