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Case Report

Actinic chelitis- A case report with literature review

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Abstract
Actinic chelitis is a potentially malignant disorder of the lip. It is usually caused by exposure to sunlight. Malignant transformation in such cases is likely to occur. manifests different clinical forms as erythema with loss of demarcation between vermilion and skin.This case report describes a case on actinic chelitis with review of literature.

INTRODUCTION

Regular and prolonged exposure to solar radiation can lead to wide-spectrum tissue alterations ranging from atrophy to dysplastic alterations in the labial mucosa, which can cause histomorphological alterations indicative of abnormalities in normal cell differentiation. The most commonly observed alteration in the lower lip is manifested as actinic cheilitis (AC), considered a premalignant lesion by the World Health Organization, with the possibility of a malignant transformation in approximately 10 to 20% of the cases [1].

CASE REPORT

A male patient with 24 yrs of age complained of wound in the left side of the lower lip past 5 months. It was associated with history of remission and exacerbation past 5 months. Lesion was associated with burning sensation with 50 out of 100 on VAS scale. He didn't give any history of habits like smoking, alcohol, consumption of hot food items. There is no significant medical history. Patient is a farmer and there is a significant history of chronic sun exposure. Patient visited a local Doctor during his previous exacerbation and applied topical preparation containing oxybenzone and methylcinnamate combination. But there was no significant improvement. On general physical examination no other body ailments were present. On examination of lesion there was peeling of mucosa over the affected area, blurring of area between vermilion border and mucosa. Lesion was erythematous with size 0.5×0.5 cm, irregular in shape with blurred area of demarcation between lesion and adjacent mucosa. On palpation there was a bleeding associated with serous discharge and area was tender on slightest provocation. Surrounding mucosa was erythematous (Figure 1). Based on history and clinical features provisional diagnosis of actinic chelitis was given. Heamatological investigations revealed no abnormality. Exfoliative cytology was carried out revealed presence of chronic inflammatory cells. Patient advised to avoid exposure to sunlight with topical application of sunscreen lotion. As there was no epithelial dysplasia, patient was followed up every 15 days and there was a reduction in size of lesion on subsequent visits.

DISCUSSION

Actinic cheilitis is a potentially malignant disorder of the lip vermillion characterized by epithelial and connective tissue alterations induced mainly by overexposure to ultraviolet sunlight, a process known as photodamage [2]. Actinic cheilitis is also known as actinic keratosis of the lip [3].

Figure 1. Lesion with loss of demarcation and areas of erythema

The main risk factors are: chronic exposure to sunlight, smoking and poor oral hygiene. The relationship between lip cancer and sun exposure was described in 1923 by Ayres. The estimated time for the development of lip cancer is 20 to 30 years, but this time is shorter for some patients. Patients at risk of developing lip cancer are usually fair-skinned smokers who are older than 50 and have a history of sun exposure. It is manifested through desiccation, erosion and loss of the lower lip border, affecting mainly light-skinned people [3].

Diagnosis from demographic findings the classical profile who uses tobacco and has a history of chronic exposure to the sun. Preferably occur in lower lip because epithelium is thinner, lacks the thicker keratin covering of skin. Actinic cheilitis may appear clinically with localized or diffused lesions. The lesions are usually asymptomatic and they are white, red, or white with interspersed areas of red in color. Whitish areas usually represent hyperkeratotic lesions, while red erosive or atrophic lesions confer chelitis [4]. It might present with dryness, desquamation, ulceration, pallor, white spots and/or plaques, areas of erythema, and blurred demarcation between the vermilion border and the skin [5].

There are two clinical forms of AC: acute and chronic. The acute form is more common in young individuals and occurs after excessive exposure to the ultraviolet light, while the chronic form is a cumulative and irreversible alteration. In chronic AC, the lip appears parched and atrophic, with dyschromic areas, white or gray plaques and recurrent erosions. The lesion is usually asymptomatic, but can in some cases be accompanied by a burning sensation, numbness and pain [6].

Histologically it is characterized by stratified squamous epithelium with ortho- or parakeratinized hyperkeratosis. Areas of acanthosis, atrophy and epithelial dysplasia can also be observed. In the region subjacent to the epithelium, chronic inflammatory infiltrates can be seen on the lamina propria with amorphous basophilic degeneration of the collagen and elastic fibers [1]. It was similar to our case which had chronic inflammatory infiltrate with mild epithelial dysplasia. There are various therapeutic modalities with the aim of removing the altered epithelium of these lesions such as trichloroacetic acid, imiquimod and retinoids. Other treatments include surgical excision with cold scalpel (vermillionectomy), vaporization with CO2 or Er:YAG laser, cryosurgery, electrodissection and photodynamic therapy with aminolevulinic acid, diclofenac in hyaluronic acid gel and dermabrasion [6,7].

Actinic chelitis is a lesion which has potential to transform to malignancy so it's the role of oral Physician to describe the consequences of this condition and to avoid the potential causes which lead to this lesion. Especially in our case exposure to sunlight was predominant cause. Patient adviced to stay away from exposure to sunlight.

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