A Rare Case of Lupus Carcinoma of External Nose

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Introduction

Cutaneous tuberculosis was once a common disease. In the recent decade because of improved living environment, BCG vaccination and effective antituberculous drugs, this disease is less common. Different forms of cutaneous tuberculosis are lupus vulgaris, scrofuloderma, tuberculosis verrucosa cutis, lichen scrofulosorum, erythema induratum, papulonecrotic tuberculid [1].

Amongst these morphological variants commonest one is lupus vulgaris constituting 59% of total skin tuberculosis. This is a chronic, progressive and tissue-destructive form of cutaneous tuberculosis seen in patients with moderate or high degree of immunity. Head and neck regions are the commonest sites involved by lupus vulgaris in European countries [2].

Lupus vulgaris can undergo malignant change in 0.5% to 10.5%. The interval from the onset of lupus vulgaris to the occurrence of malignancy ranges from 2 to 79 years. Lupus vulgaris undergoing malignant change is referred to as lupus carcinoma [3].

Case Report

A 39 years old man, presented to the ENT department of K.S.Hegde Charitable Hospital, Mangalore, Karnataka with 3 months history of ulcer over the right ala of the external nose. Initially it started as an erythematous lesion over the external nose, which later ulcerated.

His general physical and systemic examination was within normal limits. There was an ulcer over the lower third of external nose measuring 3 cm×2 cm. The edges were raised; floor was covered with the crust. Surrounding skin was erythematous and thickened with intact sensations (Fig. 1). Anterior rhinoscopy did not reveal any abnormality. There was no cervical lymphadenopathy.

We considered the differential diagnosis of Carcinoma and Lupus vulgaris. Biopsy of the lesion was taken, the histopathology showed features of non specific ulcer. The tissue from the ulcer was sent for Polymerase chain reaction (PCR) for mycobacterium tuberculosis which showed the DNA of the bacteria. The diagnosis of lupus vulgaris was confirmed.

The patient was administered anti-tubercular therapy consisting of rifampicin (450 mg), isoniazid (300 mg), pyrazinamide (1,500 mg) and ethambutol (800 mg) daily for 2 months, followed by two drugs (rifampicin and isoniazid) for the next 4 months. His lesion completely resolved over 6 months. He was on regular follow up (Fig. 2).

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Fig. 1 Lupus vulgaris

Two years after the remission of the lesion, he developed an ulcer over the right nasal ala over the same site of the healed lupus ulcer. This ulcer was 1 cm×1 cm in dimension (Fig. 3). There was induration of 0.5 cm around the ulcer. On anterior rhinoscopy no abnormality was detected. No neck nodes were palpable. Systemic examination was within normal limits.

A possibility of recurrence of lupus vulgaris was thought. Wedge biopsy of the lesion was taken. Histopathological features were suggestive of well differentiated squamous cell carcinoma.

Patient underwent Wide excision of the lesion with a margin of 2 cm and reconstruction of the resultant defect

Fig. 2 After ATT

Fig. 3 Lupus carcinoma

with forehead rotational flap (Fig. 4). Post operative period was uneventful and patient recovered well (Fig. 5). Flap division was done after 6 weeks (Fig. 6).

Patient is on regular follow up and there is no evidence of recurrence in 1 year.

Discussion

Lupus vulgaris is the most common variant of cutaneous tuberculosis which may be acquired by hematogenous, lymphatic spread or direct inoculation. Lupus vulgaris can be diagnosed clinically by diascopy in which the plaques showed apple-jelly colour.

The diagnosis can be confirmed by biopsy which shows granuloma formation with Langerhan cell and epitheloid cell infiltration. PCR test often yields positive results [4].

The most important complication of lupus vulgaris is malignant transformation. The incidence of carcinoma

Fig. 4 Excision and forehead flap- intra operative picture

Fig. 5 Forehead flap reconstruction post op

Fig. 6 After flap division

varies from 0.5% to 10.5%. The interval from the onset of lupus vulgaris to the occurrence of malignancy ranges from 2 to 79 years [3].

Malignant transformation of lupus vulgaris may be from tubercular tissue itself or from the healed scars of previous lupus lesion. The etiology of lupus carcinoma remains unknown. X-ray therapy, chronic inflammation through reactive oxygen species produced by activated inflammatory cells, cicatricial changes; physical and chemical trauma and sunlight are other factors giving rise to carcinoma [5]. Carcinomatous changes to basal and squamous cell carcinomas are reported in literature.

Squamous cell carcinoma of the external nose is managed surgically. Small size lesion can be removed by excision, laser excision or cyrosurgery. Mohs surgery has shown highest cure rate. It is advised for lesions larger than 2 cm across, poorly defined margins, recurrent lesions. If surgically removable, lymph node dissection is also advised [6].

In our patient, since the disease was involving the nose; the main challenge was not only to remove the disease, but also to provide good cosmesis. This was successfully done by wide excision followed by forehead rotation flap. Since the disease was limited to the nose without any clinical

lymph node enlargement, no adjuvant therapy was offered and he was advised regular follow up.

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