ATYPICAL PRESENTATION OF CUTANEOUS TUBERCULOSIS- A CASE REPORT

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ABSTRACT

BACKGROUND

Tuberculosis (TB) is an ancient human disease and even today it remains one of the most important public health problems. While pulmonary TB is the most common form, extrapulmonary TB is on the rise due to increase in immunosuppressed subjects. Cutaneous TB manifestations are rare forms of extrapulmonary TB. Cutaneous tuberculosis continues to be a significant medical problem even with the advent of highly effective antitubercular drugs. Lupus Vulgaris (LV) is the most common morphological variant of cutaneous tuberculosis. Once common, LV has declined steadily in incidence. In approximately 90% patients, classical lupus lesions are seen in head and neck regions. We report a case of 46-year-old female who had an atypical presentation of cutaneous TB over ear, which responded well to the antitubercular therapy.

KEYWORDS

Cutaneous Tuberculosis, Lupus Vulgaris.

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BACKGROUND

Cutaneous tuberculosis continues to be a significant health problem in today's scenario even with the advancement of antitubercular drugs. From the mid-twentieth century onwards, there was a resurgence of the disease with main causes being the increased incidence of HIV-positive patients, the emergence of multidrug-resistant tuberculosis and the growing number of patients receiving immunosuppressive treatments.(1),(2) It is still considered as an important cause of morbidity and mortality in developing countries including India. It is mainly caused by Mycobacterium tuberculosis, M. bovis and under certain conditions by attenuated BCG organism. LV is the most common morphological variant of cutaneous tuberculosis and develops in previously sensitised host with a strong positive delayed hypersensitivity to tuberculin, reported most often in the second and third decades of life in India.

Case Report

A 46 years old female patient, housewife by profession and resident of Jaipur presented to our OPD with asymptomatic erythematous lesions over her left ear, which was gradually progressing since 4 months. There was no history of photosensitivity, oral or genital ulcers. There were no associated constitutional symptoms like weight loss, evening rise of temperature, cough, breathlessness and haemoptysis. No relevant history of trauma other than ear lobe repair 30 years back was present. She had history of applying topical steroids and intralesional triamcinolone acetonide injections in the past, but got no relief and instead there was bleeding after injections. She is a known case of hypothyroidism since 16 years and on medication for the same. She had no history of diabetes mellitus, hypertension, tuberculosis or any other chronic illnesses. Family history was irrelevant.

On examination, there were multiple erythematous papules over left ear and few papules coalesced to form an ill-defined erythematous plaque of 1 cm x 0.5 cm [Figure 1]. Mild scaling was present and atrophy was prominent. No discharge was present. On palpation, the lesion was soft and non-tender. There was no lymphadenopathy. General physical and systemic examination was normal. Her haematological and biochemical investigations were within normal limits. Mantoux test was positive showing 15 mm of induration. X-ray chest showed right hilar mass with cardiomegaly [Figure 2].

She was advised for CECT chest, but she refused due to lack of monetary funds. Histopathological Examination (HPE) of the biopsy specimen from the lesion revealed nodular tuberculoid granulomatous inflammation throughout the dermis. Granuloma consists of lymphocytes, plasma cells, histiocytes, epithelioid cells and occasional Langhans and foreign body giant cells. Overlying epidermis shows moderate spongiotic psoriasiform changes. No organisms were seen [Figure 3]. These features were consistent with tuberculoid granulomatous dermatitis suggestive of cutaneous tuberculosis.

The diagnosis of lupus vulgaris was made based on clinical and histopathological findings and patient was given conventional Anti-Tubercular Therapy (ATT) consisting of rifampicin, isoniazid, pyrazinamide and ethambutol. After two months of ATT, lesions started subsiding with decreased erythema and induration [Figure 4] and x-ray chest was normal [Figure 5]. She is still under our followup.

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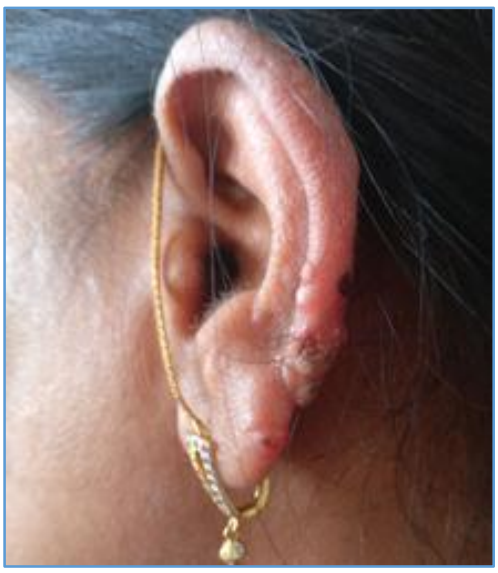


Figure 1. Erythematous Papules with Plaques and prominent Atrophy (Before Treatment)

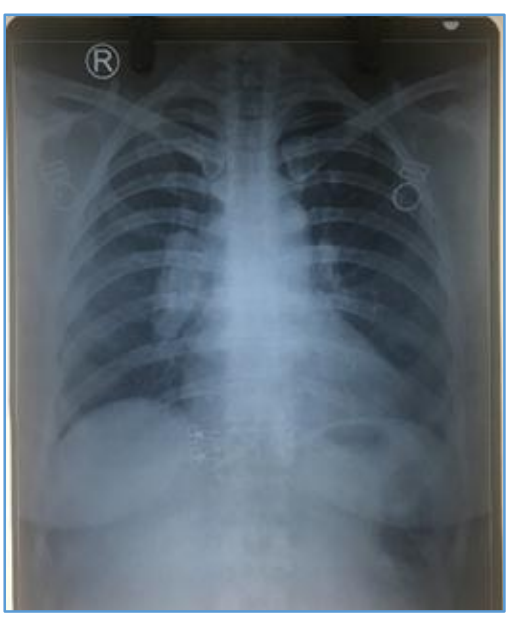
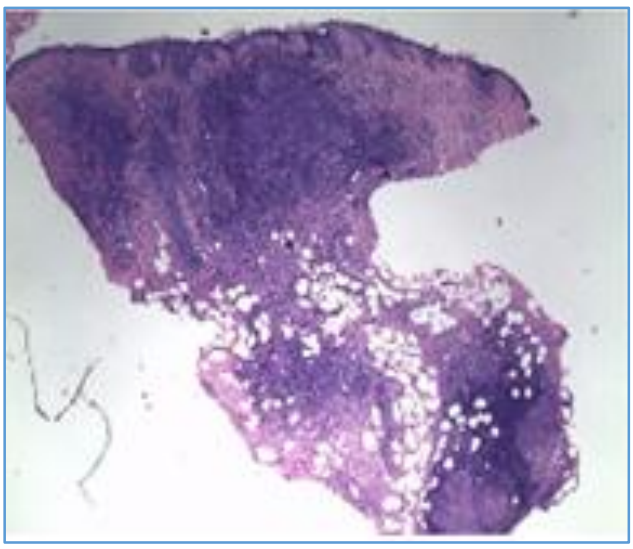
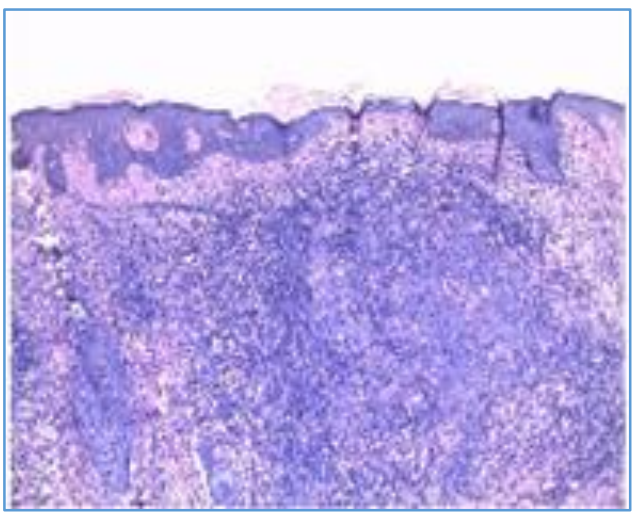


Figure 2. X-Ray Chest (PA View) showed Right Hilar Mass with Cardiomegaly





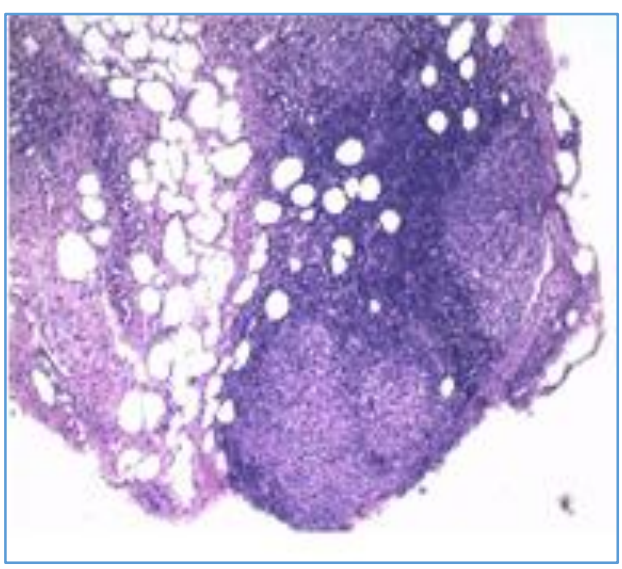


Figure 3. HPE- Epidermis shows Moderate Spongiotic Psoriasiform Changes, Nodular Tuberculoid Granulomatous Inflammation throughout the Dermis

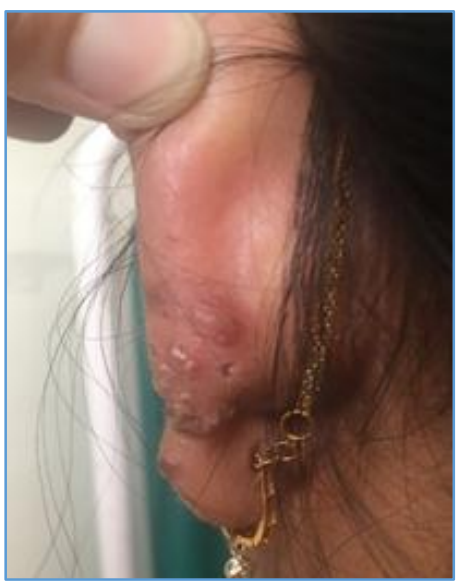


Figure 4. Decreased Erythema and Induration after 2 Months of ATT

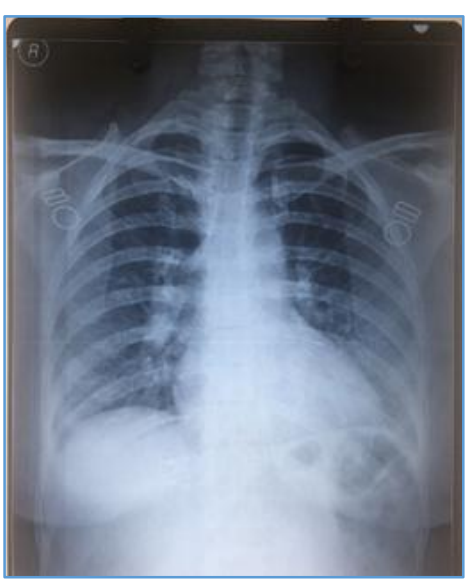


Figure 5. Normal X-Ray Chest (PA View) after 2 Months of ATT

DISCUSSION

Cutaneous tuberculosis is a rare form of extrapulmonary tuberculosis and sometimes it may be difficult to diagnose.[3] It comprises a small fraction (2%) of incident cases of TB and the incidence has decreased from 2% to 0.5%.[4] Two most frequent variants of cutaneous tuberculosis are Scrofuloderma (SFD) and Lupus Vulgaris (LV). SFD is the most common form of cutaneous TB in children,[5],[6],[7],[8] whereas LV is the most common clinical type in adults and the second most common type seen in children.[5],[8] Other than Mycobacterium tuberculosis, the infection can rarely be caused by Mycobacterium bovis or other atypical mycobacteria. Pulmonary TB is an important risk factor and it was present in our case, but was undiagnosed until patient presented to us with cutaneous lesion. Extremities are the more common sites for cutaneous TB in India, whereas neck sites followed by face and trunk are common sites of involvement in the Western world.[9],[10]

LV is chronic, progressive, paucibacillary form of secondary cutaneous tuberculosis[11] developing in a previously sensitised host with high degree of tuberculin sensitivity. It can result both from exogenous spread by inoculation as well as from endogenous spread via underlying infective focus.[12] Rarely, it may develop by direct inoculation of the bacilli following Bacille Calmette-Guerin (BCG) vaccination.[13] LV is more common in females than in males.[14] Clinically, LV is characterised by soft reddish-brown plaques with apple jelly nodules on diascopy. The disease pursue a chronic course and grow by peripheral extension and central scarring. Conventional morphological patterns observed in LV are papular, nodular, plaque, vegetating, ulcerative and tumid forms. Uncommon forms are frambesiform, gangrenous, ulcerovegetating, myxomatous, lichen simplex chronicus and sporotrichoid types.[3] In India trunk, buttocks and extremities are the predominantly affected sites, whereas in Western countries the lesions favour head and neck. Our patient is resident of Jaipur and she presented with erythematous, asymptomatic, infiltrated plaque over left ear which is the site not so common in India. The clinical appearance was somewhat similar to "Turkey ear," which was previously described as sign of lupus vulgaris.[15] Küçükünal A et al reported second case of "Turkey ear" as a manifestation of cutaneous tuberculosis.[16] The term "Turkey ear" was earlier used to describe lupus pernio.[3]

In our case, there was an atypical presentation of LV without any relevant history of trauma or any lymphadenopathy and the diagnosis was made based on clinical, histopathological and radiological findings. Both cutaneous and pulmonary lesions responded well to the antitubercular treatment after two months and patient is still on treatment and followup.

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