CUTANEOUS CHROMOMYCOSIS WITH PULMONARY GEOTRICHOSIS

N L Sharma, R C Sharma, M L Gupta, Prem Singh and V K Arora

An 80-year-old farmer had cutaneous chromomycosis on the lateral aspect of right foot. He had associated pulmonary pathology caused by another fungus *Geotrichum candidum* simulating miliary tuberculosis. Complete regression of the pulmonary lesions and partial regression of the cutaneous lesions was observed with iodide therapy.

Key words : Chromomycosis, Geotrichosis.

Chromomycosis is characterised by vegetating or warty nodules, plaques, cystic lesions and rarely systemic metastasis. It is world-wide in distribution,[1] but seen more frequently in the tropical and subtropical regions. Cases have also been reported from India.[2-5]

Geotrichosis is also a rare fungal infection with oral, intestinal, bronchial and pulmonary lesions. The causative fungus is *Geotrichum candidum*. Pulmonary infection is the most frequently reported form of geotrichosis. It simulates pulmonary tuberculosis and is usually associated with it. Very few cases have been documented in the world literature[6-8] and only two cases have been reported from India.[9,10] We report a patient in whom cutaneous chromomycosis was associated with pulmonary geotrichosis.

Case Report

An 80-year-old, farmer developed warty lesions on the right lower extremity. The lesions started 6 years ago on the front of his leg and gradually progressed to involve the sides and the sole of foot. There was spontaneous healing at some places. About an year ago, three nodulo-ulcerative lesions developed around the knee. About 6 months ago, he also developed cough with white coloured expectoration. This was associated with a mild grade evening rise of temperature and loss of appetite. There was some breathlessness on exertion. The right leg was oedematous and the skin was ichthyotic and hyperpigmented. There were warty hyperkeratotic, brownish coloured nodules involving the medial, lateral and plantar aspects of the foot. The lesions on the medial aspect extended upto the ankle. Regional lymph nodes were not enlarged.

On chest auscultation, the intensity of breath sounds was diminished with scattered fine crepitations on both sides. Nothing abnormal was detected in other systems.

His hemoglobin was 13 gm, differential count had mild lymphocytosis and erythrocyte sedimentation rate was 35 mm. Urine was normal. Chest skiagram showed bilateral scattered miliary mottling. Sputum for acid fast bacilli was negative on eight consecutive occasions. An X-ray of the right foot revealed osteoporotic changes. Blood and urine did not reveal any diabetic state. Mantoux test and blood VDRL test were negative.

Skin biopsy revealed dermal infiltrate comprising lymphocytes with occasional neutrophils. The changes were not suggestive of either tuberculosis or fungal infection.

Keeping in view, the high endemicity of tuberculosis in this region, the radiological findings and the type of skin lesions; this patient was provisionally diagnosed as a case of

From the Departments of Dermatology, Microbiology and Chest and TB, IG Medical College, Shimla-171 001, India.

Address correspondence to : Dr N L Sharma.

pulmonary and cutaneous warty tuberculosis and started on rifampicin 450 mg/day, INH 300 mg/day and thiacetazone 150 mg/day.

Culture report for fungal organisms, available after about 4 weeks showed a growth of *Phialophora verrucosum*. A review of the KOH smear from the skin scrapings showed occasional thick walled spores. His sputum was also examined for fungus and this was full of *Geotrichum* mycelia. Freshly expectorated specimen of sputum on three consecutive days showed *Geotrichum* on direct microscopy and *Geotrichum candidum* on culture. Intradermal test with *Geotrichum* antigen was negative. Potassium iodide was also added to the treatment with 10 drops of saturated solution to begin with, and increasing it upto 40 drops three times a day. The patient showed some initial improvement in his skin and pulmonary lesions with antitubercular drugs. However, the improvement was definitely faster when potassium iodide therapy was started. His chest skiagram was clear after about 6 weeks of treatment with potassium iodide and the skin lesions became flat.

Comments

Tuberculosis is highly endemic in this region and is frequently over-diagnosed. However, in this patient repeatedly negative sputum smears for AFB and lack of histopathological evidence in biopsy sections went against this diagnosis. The subsequent investigative results confirmed the diagnosis of cutaneous chromomycosis. This particular infection is not very common, though Mohapatra et al[3] have emphasized its high endemicity in north India, because of favourable geographic and climatic conditions.

Geotrichum candidum may be a normal inhabitant of respiratory tract and rarely be responsible for opportunistic infections. However, in the present case its repeated isolation from sputum and a rapid therapeutic response to potassium iodide, point towards its pathogenic nature. Pulmonary geotrichosis is a rare condition and this is the third reported case from this country.

Most cases of these fungus infections are associated with some underlying diseases like diabetes, tuberculosis, systemic lupus erythematosus, leprosy or leukemia. Except for the old age or some occult malignancy, there was no systemic disease to account for the lowered resistence in our patient.

Overlapping fungus infections were found in six cases of chromomycosis by Fukushiro.[11] It was associated with cryptococcosis in 4 cases, with visceral lesions due to *P. dermatidis* in one case and with cerebral lesions due to *C. trichoides* in one case of cutaneous alternariosis. Association of chromomycosis with pulmonary geotrichosis seems to be the first report.

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