



Research Article

SOFT TISSUE ADIPOSE TISSUE TUBERCULOSIS-RARE PRESENTATION AND DIFFICULT TO TREAT

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ABSTRACT

Tuberculosis is a chronic bacterial infection that is caused by mycobacterium tuberculosis. A 22 year old boy presented with complaints of small nodular mass at right hypochondrium which is initially size of 5 rupee coin, on Histopathology s/o (gross)- fibrofatty tissue measuring 7.5x4.5x2.5 cm cut surface. Ill defined friable grayish white to yellow area, Microscopic-section reveals Langhan's giant cell and inflammatory infiltrate with extensively caseating epithelioid cells granuloma. Impression- tuberculosis. CBNAAT positive for tuberculosis and shows sensitive for rifampin. after being complete of cat 1. His complaints not resolved completely. Size of nodes decreases but local tenderness and nodularity remains,. Then he switch to Category 2 under DOTS, after being complete of DOTS category 2 his complaints resolved completely. This case report also helpful in future study of mycobacterium tuberculosis in resides in acidified intracellular compartment in mature adipocytes in dormant stages. And for future design of antimicrobial therapy for rare cases like this.

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INTRODUCTION

Tuberculosis is a chronic bacterial infection that is caused by mycobacterium tuberculosis. It infect any body organ from head to toe, if early measures are not taken it might result in devastating outcome(1), it is important reason of morbidity and mortality in developing countries like India soft tissue/adipose tissue is rare form of extra pulmonary tuberculosis.

Case report

A 22 year old boy presented with complaints of small nodular mass at right hypochondrium which is initially size of 5 rupee coin then go to nearby hospital taking seven days course of antibiotics with analgesics. He observed initially reduction of size of mass during medication. And after 2 months period he found recurrence of mass which was nodular in shape and multiple in number approx 5-7 at right hypochondrium, associated with new onset of complaints of weight loss, loss of appetite and night sweating. No complaints of fever/cough/cold/expectoration/shortness of breath/altered bowel habits. Family history- father had tuberculosis already on ATT under DOTS category 2 for koch's abdomen. On examination of mass- which was hard in consistency, tenderness present, local temperature is raised with nodular in consistency and mobile on underlying tissue with no discharging sinus present. Routine examination blood and urine were normal except raised ESR=30mm, viral markers

WNLUSG abdomen s/o- evidence of subcutaneous edema with coetaneous thickening with approx 5.7x2.3 cm sized well defend heterogeneously echogenic area at site of swelling which reveals internal vascularity?cause?nature and advice his to pathological correlation. Histopathology s/o (gross)- fibro fatty tissue measuring 7.5x4.5x2.5 cm cut surface. Ill defined friable grayish white to yellow area,

Microscopic- section reveals Langhan's giant cell and inflammatory infiltrate with extensively caseating epithelioid cells granuloma.

Impression- tuberculosis. CBNAAT positive for tuberculosis and shows sensitive for rifampin.

After it patient started non-DOTS (AKT) by local physician after taking 3 month of treatment his complain are not relived, so he went to district hospital where he started DOTS under category 1 after being complete of cat 1. His complaints not resolved completely. Size of nodes decreases but local tenderness and nodularity remains, there is slight improvement in constitutional symptoms and weight improved. Then he switch to Category 2 under DOTS, after being complete of DOTS category 2 his complaints resolved completely.

DISCUSSION

tuberculosis is major health problem throughout the globe mainly in developing countries like India(1). And the common site of extrapulmonary TB is lymphnode, pleura, pericardium, CNS, urinary and musculoskeletal system.

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Skin and soft tissue involvement are rare form of mycobacterium tuberculosis infection(2). However it should be given more importance of TB in soft tissue in endemic area and immune-compromised peoples. Soft tissue involvement may be from direct inoculation, hematogenous, lymphatic drainage, cell mediate (migrating dendriatic cell)(1). Cold abscess is an uncommon form of soft tissue tuberculosis that can be single or multiple with or without fistula. This abscess is usually multi lobulated and mainly occurs in immune-compromised patient and cold abscess are not involve toxic symptoms(2).

There is always taken high suspicion of tuberculosis in patient of endemic area and how had history of tuberculosis contact and always look for multiple drug resistance tuberculosis in patient of extrapulmonary tuberculosis with first presentation. On the basis of clinical examination of mass.

Differential Diagnosis

1. Hepatomegaly ruled out by USG
2. Secondary skin metastasis carcinomatous ruled out by histopathology.
3. Scrofuloderma is most common form of cutaneous tuberculosis in children and historically was seen after consumption of milk contained with mycobacterium bovis. It is results as direct extension such as regional lymph node and infected bone or joint to overlying skin lesion are firm, painless, subcutaneous, red-brown nodules overlying on infectious foci that eventually suppurates and form ulcer and sinus tract in overlying skin discharge is watery, purulent, caseous material, skin biopsy revealed tuberculoid granuloma surrounding area of wedge shaped necrosis and it is most common found on cervical region(3)

This case is also Interesting Because of 2 Features

1. Involvement of rare place for extra pulmonary tuberculosis treatment
2. Taking usual long period of time compare to other extra pulmonary tuberculosis treatment.

Some study show that inside adipocytes tubercle bacillus exhibit increased and diminished resistance to isoniazid and pyrazinamide respectively, therefore it might rely on dormancy like state of bacillus inside cells and another explanation of long duration therapy may be due to differential hydrophilicity of this conventional antibiotics. Rifampicine and ethambutol are lipophilic and isoniazid are hydrophilic and pyrazinamide had better antimicrobial activity in acidic medium(4).

Role of corticosteroid the newer regimes of antitubercular drugs guidelines from both the British and American thoracic societies suggest that corticosteroid still have a role in management of tuberculosis. Corticosteroid is most commonly used for their anti inflammatory properties to treat either the disease itself or occasionally the hypersensitivity reactions that occur with anti tubercular drugs. As a generalization corticosteroids may be tried in any patient in which systemic system or local pressure effects are problem(5).

CONCLUSION

1. This case report also helpful in future study of mycobacterium tuberculosis in resides in acidified intracellular compartment in mature adipocytes in dormant stages.
2. And for future design of antimicrobial therapy for rare cases like this.

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