

Tuberculous panniculitis mimicking hidradenitis suppurativa

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Abstract

Tuberculous panniculitis is a rare form of cutaneous tuberculosis caused by *Mycobacterium tuberculosis*. Mycobacterial infections have a great morbidity and diagnostic challenge. Herein, we report a 51-year-old male who had multiple abscesses and nodules presented as panniculitis associated with tuberculous infection.

Introduction

Tuberculosis is an infection caused by *Mycobacterium tuberculosis* and it is endemic in developing countries like Sri Lanka mainly in places with overcrowding and poor socio economic status.

Cutaneous TB shows wide spectrum of clinical presentation due to direct inoculation or hypersensitivity reaction. Tuberculous infection of subcutis such as tuberculous panniculitis is a rare entity. Here we report a case of 51-year-old male who presented with multiple nodule and abscesses.

Case history

51-year-old male presented with painful swelling and discharge from groin and umbilicus region for 2 months duration (Figure 1, 2). He was treated with



Figure 1.

antibiotics and repeated surgical incision and drainage without any improvement. Hidradenitis suppurativa, chronic tuberculous, non-tuberculous infection and deep fungal infection including actinomycosis were considered as initial differential diagnoses. There was no history of chronic cough or any contact history of tuberculosis.



Figure 2

His initial investigations revealed WBC - $10.18 \times 10^9/L$, Hb - 13.4g/dl, Platelet - $341 \times 10^9/L$, CRP - 25 mg/l, ESR - 48mm, BU - 36mg/dl, serum creatinine - 79 micromoles/L. Ultrasonography of groin appearances was suggestive of inflammation of subcutaneous tissue with abscess formation and suppurative lymphadenopathy. Skin biopsy showed lobular panniculitis without caseous necrosis or granulomatous inflammation or vasculitis with predominant neutrophil inflammation suggestive of infective panniculitis (Figure 3). GeneXpert for TB of the pus from the groin region was inconclusive. Pus culture was positive for coagulase negative *Staphylococcus aureus*. Melioidosis antibodies were negative. Serum amylase and alpha 1 antitrypsin levels were normal. Fungal culture didn't reveal any growth. Chest radiography was normal. Initially he was treated with short course of steroids as there was evidence of panniculitis and GeneXpert was

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inconclusive. He has responded to steroids earlier, but later he presented with draining abscesses later. Pus culture in the Lowenstein Jensen medium revealed growth of mycobacterium and further sub typing showed mycobacterium tuberculosis.

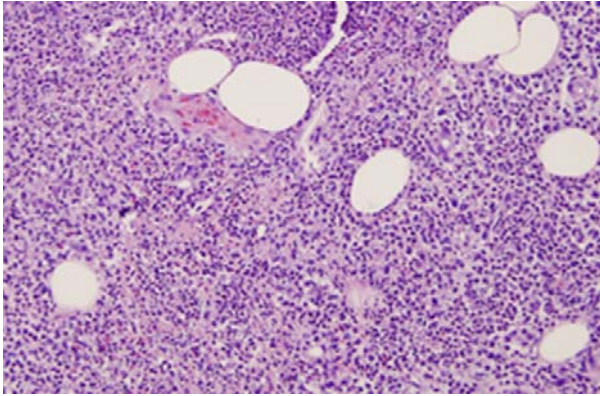


Figure 3.

He was commenced on anti-tuberculosis treatment including rifampicin, pyrazinamide, isoniazid and ethambutol. His skin lesions were healed with scarring without any pus discharge and revealed a significant (90%) improvement.

Discussion

Cutaneous tuberculosis has wide spectrum of clinical

presentation depending on the host immune status and mode of inoculation.

Panniculitis is an inflammation of the sub cutaneous tissue and tuberculosis affecting skin and subcutaneous tissue is extremely rare. Erythema induratum is a panniculitis with nodular vasculitis which is a well-known association with TB which has been regarded as a manifestation of tuberculin hypersensitivity. There were only few case reports of other forms of tuberculous panniculitis were reported.

Eventhough there are advances in microbiology, including polymerase chain reaction, mycobacterial culture is the gold standard diagnostic tool. However, it takes about 6 weeks leads to delay in the diagnosis. GeneXpert for MTB is a diagnostic tool for pulmonary TB with a sensitivity and specificity of 90.4% and 98.4% respectively. However, for extra pulmonary TB including cutaneous TB, its sensitivity varies widely. Blood-stained samples may lead to inconclusive results.

References

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