

Recurrent insulin injection abscesses: Atypical etiology

Sir,

A 63-year-old man with type 2 diabetes presented with a 2-month history of swellings and discharge over his thighs and abdomen at the injection sites of insulin. He was using glargine insulin for the past one year, once daily at night time, with vial and syringe. He used to change the syringe once in 3 days and follow the storage guidelines for the insulin.. His previous glycemic control was poor with evidence of microvascular and macrovascular complications and HbA1c

of 10.2%. Clinical examination revealed normotensive individual with multiple subcutaneous abscesses over anterior abdominal wall and thighs [Figure 1a and b]. Pus drained from the abscesses did not stain any organism on Gram's stain and no organism was grown after 7 days culture in agar medium. The patient was treated initially with beta lactam antibiotics and cephalosporins without any improvement.

Repeat staining with Ziehl–Neelsen stain showed the presence of alcohol fast bacilli (AFB) and prolonged culture led to the isolation of the pathogen. Recurrent abscesses coupled with negative cultures led to the possibility of atypical organism. Positive AFB staining and culture characteristics of the bacteria confirmed the diagnosis of *Mycobacterium chelonae* as the underlying etiology of injection abscesses. Cultures from the tip of insulin syringe needles and insulin from the bottle did not reveal presence of this organism. He was treated with clarithromycin (500 mg thrice daily) and linezolid (600 mg twice daily) for 8 weeks. The abscesses healed completely without any recurrence.

M. chelonae is an atypical mycobacterium and is classified under rapid growers (Group IV of Runyon's classification).^[1] The organism is present ubiquitously in the environment and is difficult to culture. Cutaneous infections are seen in immunocompetent individuals and disseminated disease in immunocompromised patients. The portal of entry commonly is skin, leading to cellulitis, granulomas, nodules, ulcers, and abscesses.^[2] Disseminated infections lead to deep-seated infections like osteomyelitis, endocarditis, meningitis, and keratitis. *M. chelonae* is not amenable to antitubercular therapy and is sensitive to clarithromycin, linezolid, and ciprofloxacin.^[3] Deep-seated infections require parenteral mode of therapy in addition to use of imipenem in resistant cases. To conclude, our case

highlights the need to look for atypical organisms in cases of recurrent insulin injection site abscesses.

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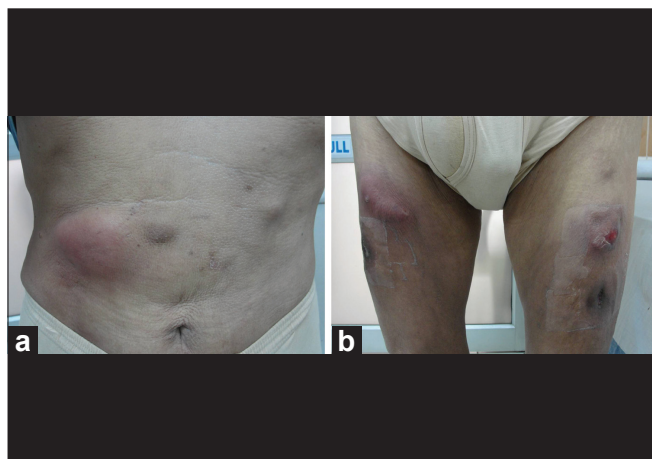


Figure 1: Insulin site abscesses over anterior abdominal wall (a) and thighs (b)