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Diagnosis at first sight

A case of recurrent mass during and after anti tuberculosis treatment

Un caso de masa recurrente durante y después del tratamiento de la tuberculosis

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Clinical description of the case

A 21-year-old-woman with a history of tuberculosis (TB) lymphadenitis was admitted to our department with recurrent swelling and discharge in cervical region for 20 months. Tuberculosis culture was not available and therefore could not be performed. The diagnosis of TB was confirmed by positive polymerase chain reaction (PCR) and biopsy. Quadruple anti-TB drugs including isoniazid, rifampin, pyrazinamide, and ethambutol were administered. The patient had good adherence to TB drugs except for some days. Progressive improvement was evident, and she remained completely asymptomatic until the completion of an intensive 2-month phase of therapy. Three months later, newly recognized nodes appeared in the right cervical region and some of them had developed fluctuance and discharge. On the drugs, the nodes with fluctuance and spontaneous discharge was surgically removed. The sample was negative for acid-fast bacteria (AFB). Necrotizing granulomatous inflammation continued to be observed on histopathology. The treatments were stopped in the end of nine months despite of recurrent complaints. Later, the patient was referred to our department for further investigations. On examination, the mass was non-tender but fluctuating (Fig. 1). Two scar tissues were present due to previous biopsies performed. The patient stated that the involved lymph nodes initially swelled and then by hardening, began to discharge from a place within the lymph node. Her condition has been lasted for around 20 days. During the episodes, she experienced slight pain and discomfort. In detailed medical history, the patient had not taken the TB pills for 14 days when visited her hometown. The laboratory values showed a total white blood cells count of 7500 cells/McL, with 72% neutrophils, c-reactive protein: 10 mg/L (0–5), sedimentation rate: 15 mm/h. Serologies for syphilis, Hepatitis B Virus, Human Immunodeficiency Virus (HIV) were all negative and there was no indicative of recent infection for Epstein–Barr Virus, Toxoplasmosis, and Cytomegalovirus.

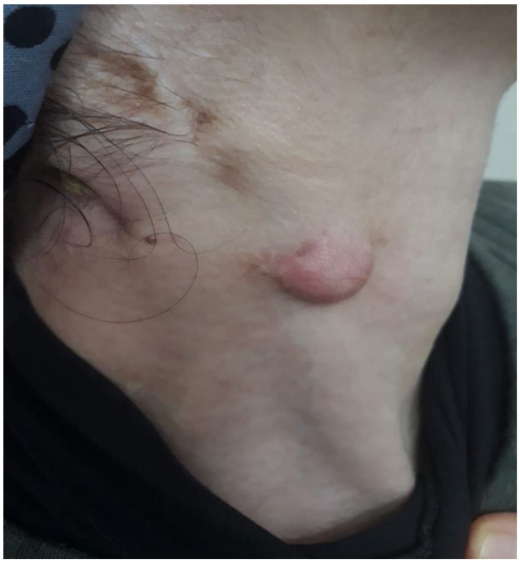

Fig. 1. Fluctuant and painless cervical mass.

Diagnosis and evolution

Due to possibility of drug resistance, accompanying infections and underlying condition, the mass was completely drained and cultured. The gram staining of the samples revealed abundant leukocytes but no microorganism. The solid and liquid cultures of the materials were negative. The cultures for tuberculosis and other bacteria remained sterile and PCR for TB was negative. No specific etiology was identified and therefore surgically removing of lymph nodes was performed. The biopsy showed granulomatous inflammation with abscess. Any specific diagnosis could not be reached. In the light of these findings including recurrent fluctuance and discharge, the patient was considered as recurrent paradoxical reaction (PR). Oral steroid (1 mg/per weight) was administered and gradually tapered over 8 weeks. The neck mass completely regressed. However, 2 weeks after cessation of the steroid therapy,

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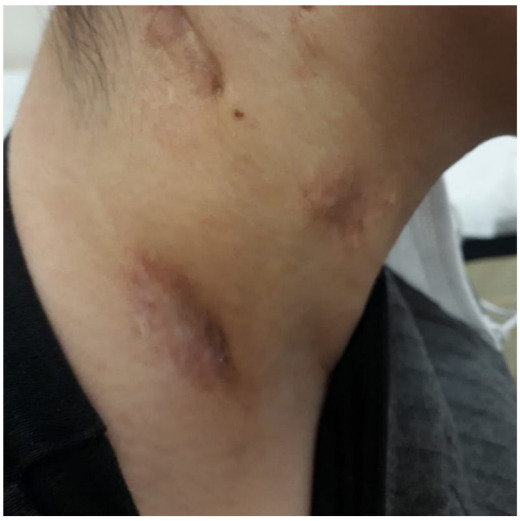

Fig. 2. Complete recovery of the swelling after steroid treatment.

enlarged/swollen lymph nodes re-appeared. We followed-up the patient with nonsteroidal anti-inflammatory drug (NSAID) for 2 months but the neck mass recurred. A total of 6 months of steroid treatment was planned. Initially, the patient was given oral steroid (1 mg/per weight) tapered over for 8 weeks. Subsequently, the treatment was continued at a dose 5 mg/daily. The mass completely disappeared with a scar, and her complaints did not recur (Fig. 2). She has been doing well for 2 years and no recurrence.

PR is not a rare phenomenon during TB treatment and can be rather difficult to diagnose due to some confusing etiologies including drug resistance, bacterial infections, and alternative diagnosis. Based on the clinical forms of the TB disease, this reaction can be observed in the range of 6–30% in HIV negative patients but higher rate in HIV positive people.[2] In a study, TB lymphadenitis was addressed in non-HIV patients and post-treatment PR was observed in 15% of cases.[3] It occurs between the 3rd week and the 3rd month of TB treatment but very rarely after cessation of treatment. Generally, it lasts nearly 2 months, and its diagnosis is made by excluding alternative causes.[1] In the presented case, PR began in the 3rd month of the treatment and lasted for months after discontinuation of the therapy.

There is no consensus on the management of treatment of PR. Furthermore, the benefit of corticosteroid therapy is controversial and has only clear evidence for treatment of disease of the central nervous system.[1] For TB lymphadenitis, the previous data were found insufficient evidence in a review.[4] PR is usually mild and self-limited condition and 56% of lymph node PRs result in spontaneous resolution.[1,5] When a PR occurs, some suggest observation, aspiration, prolonged course of TB treatment, use of corticosteroid and NSAID and complete excision of lymph node.[4] However, our patient had recurrent attacks and the mass failed to improve on the above treatments. PR occurred again after discontinuing TB treatment and removing the nodes.

In conclusion, recurrent PR is a rare phenomenon and corticosteroid treatment appeared to completely improve PR in our case. Therefore, we suggest the efficacy of administration of prolonged steroid therapy in this situation should be explored.

Conflict of interest

There is no conflict of interest.

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