

Perianal ulcer as a marker of tuberculosis in the HIV infected

Sir,

Cutaneous tuberculosis (TB) accounts for 0.14% of all cases of tuberculosis.^[1,2] Although TB is a common disease in human immunodeficiency virus infected (HIV) patients, exclusive cutaneous presentations are not common. An uncommon form of TB, tuberculosis cutis miliaris acuta generalisata, has reemerged among HIV-infected patients in recent years.^[3] The clinical appearance of the lesions is not always characteristic and culture positivity for *M. tuberculosis* is not always obtained.^[2] Moreover, clinical studies have shown the detrimental effects of TB on the course of HIV infection. The risk of death in HIV-infected patients with TB has been reported to be twice that of HIV-infected patients without TB, independent of the CD4 cell counts.^[4] Thus, diagnosing and treating TB at an early stage has a positive impact on the outcome of HIV. We report here three HIV infected cases with non-healing, perianal ulcers of tubercular origin.

A 39 year-old male with a non-healing perianal ulcer [Figure 1] for five months that was not responding to antibiotic and antiherpetic therapy was found to be HIV



Figure 1: Case 1-perianal ulcer (pretreatment)

infected (tested by ELISA) with a CD4 count of 130 cells/mm³. The chest X-ray and ultrasonography (USG) of the abdomen revealed no abnormalities. The Mantoux test (MT) with 5 tuberculin units (TU) was nonreactive after 48 hours, and sputum tested negative for acid-fast bacilli (AFB). A fistulogram showed a fistulous tract with no communication with the rectum. A swab from the ulcer showed AFB (bacillary index 2+) on Ziehl Nelson (ZN) staining. The patient was treated with antitubercular treatment (ATT) DOTS (Directly Observed Treatment-Short Course) category I, *i.e.*, isoniazid, rifampicin, pyrazinamide and ethambutol for two months followed by isoniazid and rifampicin for four months along with cotrimoxazole for prophylaxis of pneumocystis jiroveci pneumonia. The patient started showing signs of healing after four weeks and showed complete healing on follow-up after six months.

A 30 year-old male admitted in a surgical ward for a non-healing perianal ulcer for six months was found to be HIV seropositive. Erythrocyte sedimentation rate (ESR) was found to be elevated (125 mm) and the chest X-ray showed left upper zone and mid zone consolidation with sputum testing positive for AFB. A swab taken from the ulcer was negative for AFB. The patient was considered to be a case of pulmonary TB and was treated with ATT category I. After completion of ATT, the chest X-ray findings improved and the perianal ulcer also healed completely, suggesting its tubercular origin.

A 38 year-old HIV-positive male had a nonhealing perianal ulcer for six months. He also had seborrheic dermatitis and oral hairy leukoplakia with raised ESR (98 mm) and reactive MT (20 mm) at 48 h with 5 TU; USG of the abdomen showed splenomegaly. Neither the swab taken from the ulcer nor the sputum showed any AFB on ZN staining. The patient

was given ATT category I due to the high ESR with positive Mantoux test and splenomegaly seen on USG. The ulcer showed signs of healing after one month and showed complete healing after completion of ATT, suggesting a diagnosis of tuberculous ulcer. CD4 counts could not be determined in cases 2 and 3 due to a scarcity of resources.

The main clue that pointed towards the tubercular origin of the ulcer in the 1st case was the AFB seen on ZN staining in the swab taken from ulcer. The 2nd patient had high ESR, consolidation seen on the chest x-ray along with sputum positivity for AFB. The 3rd patient had high ESR, reactive MT and splenomegaly. There was no response to antibiotic or antihypertensive therapy in all the three cases and response to ATT pointed to tuberculous nature of the ulcers in all of them.

A positive smear for AFB is suggestive of contagiousness and these patients should be treated promptly. Farina reported a case of acquired immunodeficiency syndrome (AIDS) with ulcers over the nose, cheeks and forehead resembling herpes simplex infection with no AFB visible on ZN staining. The biopsied material was subjected to culture which showed growth of *M. tuberculosis*.^[2] Pandhi *et al*,^[5] reported that response to ATT evaluated after four weeks can be used to support the diagnosis of cutaneous TB in doubtful cases where laboratory results are equivocal as in case 3 of this report. Chiewchanvit *et al*, reported three HIV-infected patients with cutaneous TB confirmed by culture and polymerase chain reaction.^[6] Although the diagnosis of cutaneous TB may be confirmed by ZN staining from skin biopsies or smears, results are often negative because skin lesions are typically paucibacillary.^[7] In resource-poor settings where culture and PCR facilities are not available, a high index of suspicion, meticulous screening for other TB foci with the help of available facilities such as chest X-ray, USG of the abdomen, MT, smear for AFB from the local site and response to ATT, are helpful in establishing the diagnosis of cutaneous TB.

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