

## CASE REPORT

# PRIMARY NASAL SEPTAL TUBERCULAR ABSCESS IN HIV PATIENT

Lav B Selarka<sup>1</sup>, Falguni Iyer<sup>2</sup>

<sup>1</sup>Department of ENT and Head & Neck, <sup>2</sup>Department of Medicine and Infectious Disease, Shalby Hospital, Ahmedabad

**Correspondence:**

Dr. Lav B. Selarka,  
Department of ENT and Head & Neck,  
Shalby Hospital, Ahmedabad

## ABSTRACT

India has an estimated 6 million HIV infected people. Tuberculosis is the most common cause of death in people with HIV. Tuberculosis may become apparent at any time during HIV infection and may be pulmonary or extra pulmonary. Although tuberculosis is a life time risk of 50% among HIV infected individuals; nasal tuberculosis is still rare. We describe a rare case of primary nasal tuberculosis in an adult male who presented with nasal vestibulitis and septal abscess and simultaneously diagnosed as HIV reactive. The patient successfully responded to antituberculous drug treatment along with antiretroviral therapy.

**Keywords:** Extra pulmonary Tuberculosis, HIV infection, Nasal presentation, pus culture and microbiology

## INTRODUCTION

Nasal tuberculosis - either primary or secondary to pulmonary tuberculosis or facial lupus, it should be considered in the differential diagnosis of nasal granulomas. We describe a rare case of an adult male who presented with a nasal vestibulitis and septal abscess, diagnosed as HIV reactive and primary nasal tuberculosis. The diagnosis was based on pus microscopy and culture examination. The patient was treated with antituberculous drug and anti-retroviral therapy. Given the rising incidence of tuberculosis, it is prudent that otolaryngologists remain cognizant of this infection as a potential cause of unusual lesions in the head and neck.

## CASE REPORT

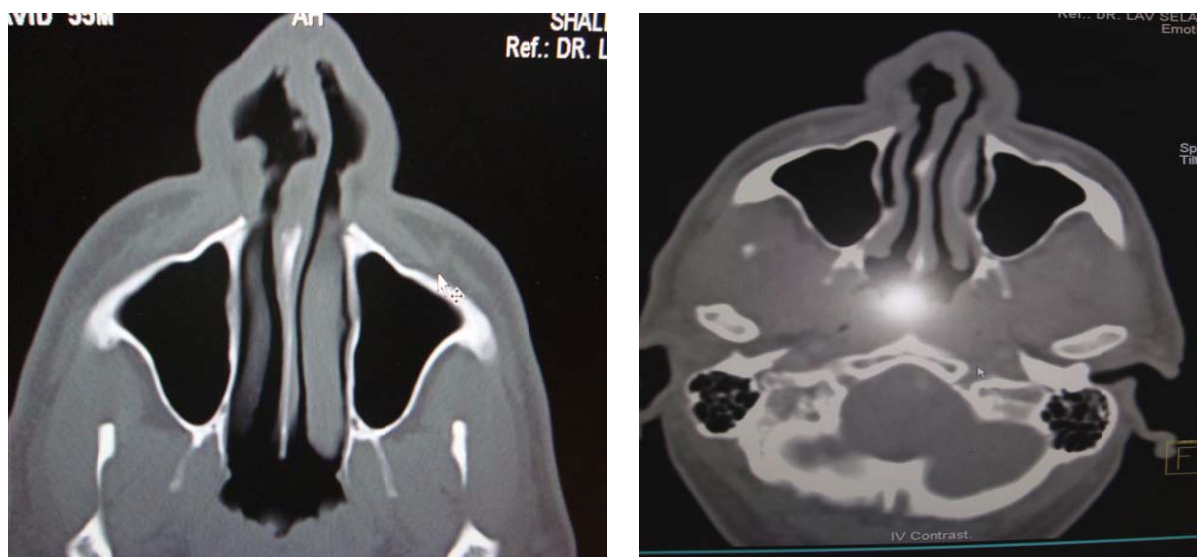
A 55 year old male presented to ENT OPD with chief complaint of nasal blockage with pain and tenderness over the nasal vestibule and septum since one month. He had already taken oral antibiotics but did not improve. Swelling was progressively increasing, along with on and off nasal bleeding. There was no history of trauma. He did not have any history of diabetes or hypertension. He was admitted as a case of nasal vestibulitis and septal abscess. He underwent routine blood investigation in which he was diagnosed to have S.HIV reactive and so detail work up done.

On clinical examination there was swelling of the dorsum of the nose, anterior rhinoscopy showed bulge in the right side septum and granular ulcerative lesion. Postnasal space was apparently normal. CT scan of paranasal sinuses revealed Enhancing soft tissue thickening involving vestibule, distal nasal septum, right lateral wall of nose and part of left lateral wall of nose. (Fig. 1). Posterior part of septum was absolutely normal.

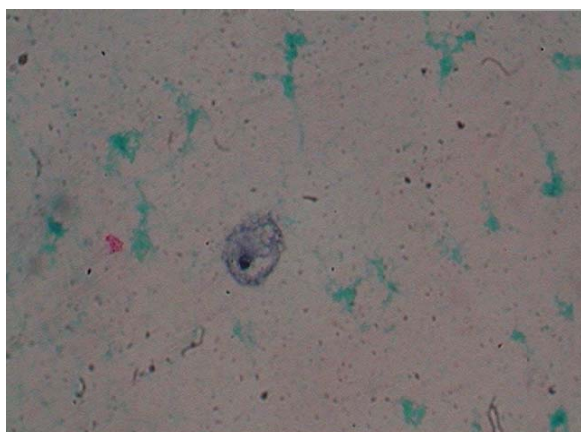
Incision and drainage was done under local anesthesia in view of medical condition. Incision and Drainage revealed minimal seropurulent discharge. The mucoperichondrium was thickened with lots of granulation tissue. Quadrangular cartilage was thinned out. Seropurulent discharge was sent for microscopy, bacterial culture, sensitivity and fungal smear.

## INVESTIGATIONS

At the time of admission Hb.- 14.9gm%, WBC count was 4300, neutrophils - 59% and ESR was 14 mm/hr. HIV – 1 reactive. RFT, LFT, Blood glucose within normal limits. S.HbsAg, S.VDRL, S.Toxoplasma and HSV1/2 were negative. CD4 count was 96. Fungal smear of pus was negative. Chest X-ray and abdominal sonography was normal. Pus smear and culture was positive for AFB (Fig. 2).



**Fig 1: Enhancing soft tissue thickening involving vestibule, distal nasal septum, right lateral wall of nose and part of left lateral wall of nose**



**Fig 2: ZN stain of pus suggestive of AFB**

### MANAGEMENT

Patient was started on broad spectrum injectable antibiotics and anti-inflammatory drugs. After the pus smear report showed AFB positive, four drugs AKT started. Patient was given tablet co-trimoxazole for Pneumocystis jirovecii (PCP) prophylaxis.

Follow up was done after 15 days, patient symptomatically improved. He was started on triple drug anti-retroviral therapy ( Zidovudin + Lamivudin + Effavirine).

### OUT COME AND FOLLOW UP

Follow up done on every two weeks for one month and then after every monthly. Clinically lesion improved dramatically within 3 to 4 weeks. Hemogram, LFT and RFT investigated regularly, no abnormality was detected in blood investigation and no drug to drug interaction or side effects noted. After 3 months

CD4 count repeated and improved from 92 to 151 and after 6 months it increased upto 351.

### DISCUSSION

Tuberculosis is highly prevalent in India particularly in HIV infected patients. While Extra-pulmonary TB accounts for only 20% of TB in non-HIV patients; it constituted 45 to 50% of all TB in cases of patients with HIV AIDS.<sup>1</sup>

Primary nasal tuberculosis is extremely rare, indeed any nasal involvement is uncommon but in over 75 per cent of cases represents a manifestation of generalized disease.<sup>2</sup>

Nasal septal abscess occurs with collection of purulent material between the cartilage and the bony septum or its mucoperichondrium and periosteum. The drug therapy for nasal tuberculosis is the same as for generalized condition. The surgical debridement is essential for diagnosis and clearance. Delayed management of septal abscess can result in compromise of the vascular supply to septal cartilage resulting in its ischaemic necrosis and saddle shaped deformity of the nose. Other complications of septal abscess documented include sepsis, bacteraemia, meningitis and maxillary hypoplasia<sup>3</sup>. However in any case pulmonary Koch's should be ruled out by chest X-ray.

Various lessons can be learned from this case. First, it is very important to suspect and establish an early diagnosis of HIV in any patient having long lasting and not improving skin and soft tissue infections. Second, during I&D procedures along with gram stain, AFB stain and culture is mandatory.

It is very important to start AKT first and delay antiretroviral therapy for atleast two weeks, so that AKT is better tolerated and we can avoid IRIS

(immune reconstitution inflammatory syndrome) <sup>4</sup> . Effavirin based ART is selected. In this particular case, regular follow up is required to monitor CD4 count, to see clinical improvement and more important to detect any side effect and drug-interaction of AKT and ART <sup>5</sup>.

Last but not least, early diagnosis and appropriate treatment with good patient's compliance is must in patient of TB and HIV for better prognosis and prevent resistance. Tripple drug ART improves quality of life in HIV infected patients and reduces the risk of opportunistic infections.

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