

## An intravenous drug abuser with painless neck masses

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### Case History

A 43-year-old man with a history of intravenous drug abuse for 2 years presented with progressive and painless swellings in the left side of the neck for a duration of 1 month. He also complained of intermittent fever for 2 weeks with reduced appetite and night sweats. There was no nasal, ear or other constitutional symptoms elicited.

Physical examination showed a comfortable best cachectic-looking middle-aged man. A slightly tender and fluctuant level II swelling on the left side of the neck, measuring 4 × 5 cm was noted (Figure 1). Another firm and non-tender swelling measuring 4 × 4 cm was noted at the left supraclavicular neck region. Other ENT and abdominal examinations were normal.



**Figure 1.** Level II swelling on the left side of the neck measuring 4 × 5 cm and inflammation over the skin (orange arrow). Left supraclavicular swelling measuring 4 × 4 cm with normal overlying skin (blue arrow)

### Questions

1. What is the most likely diagnosis of the neck mass?
2. What are the differential diagnoses?
3. What are the required investigations?
4. What is the complication of the treatment?

2. Deep neck infection or abscess and metastatic tumour to the lymph node.
3. TB screening is required. This includes sputum for acid-fast bacilli (AFB), tuberculin skin test, chest radiograph (CXR) and erythrocyte sedimentation rate (ESR). As the patient also presented with neck mass, a fine needle aspirate for AFB test, cytology, culture and sensitivity are necessary.

### Answers

1. The most likely diagnosis is tuberculous (TB) lymphadenitis, also known as scrofula.<sup>1</sup> It was found that there is a statistically significant increase in the incidence of TB lymphadenitis in the HIV-infected male patients.<sup>2</sup> Among 1,548 TB patients in Penang General Hospital during 2006–2008, more than 7% had TB lymphadenitis. The most common co-morbid condition was HIV infection, of which 80% were men.

In this case, the CXR was normal and the ESR was 113 mm/h. A fine needle aspiration was performed yielding a purulent discharge. The culture was AFB-positive for *M. tuberculosis*, (the result shown 3+ growth). The culture was sensitive to streptomycin, isoniazide, rifampicin and ethambutol. However, the sputum smear was negative for AFB. The patient was started on an antituberculosis treatment. He was also confirmed to have hepatitis C infection during this admission. Retroviral status was positive.

4. Anti-TB treatment, especially streptomycin, is ototoxic. It can lead to sensorineural hearing loss (SNHL). Before SNHL sets in, the earliest symptoms include tinnitus and vertigo. Once the symptom is detected, an alternative regime should be considered. Distortion product otoacoustic emission is more sensitive to detect early ototoxic effect of streptomycin, as compared to pure tone audiometry.<sup>3</sup>

As for the HIV infection, the treatment should be commenced once viral load and CD4 count are established. Even though the fatality rate during treatment is high in co-infected (TB/HIV) patients, initiation of antiretroviral therapy can improve the immune system thus reducing the risk of opportunistic infections.<sup>4</sup>

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