

IMAGES IN MEDICINE

Aspergillus thyroiditis

A 31 year old woman with history of end stage AIDS was admitted with a 10 day history of malaise, fever, and chills. She also gave a history of palpitations, heat intolerance, and tremors. Her physical examination revealed tachycardia, a temperature of 102°F, and an exquisitely tender thyroid gland, which was three times the normal size. The gland was symmetrical, hard in texture, and without any palpable nodules. Her white blood cell count was 500/mm³. Thyroid function tests were as follows: thyroid stimulating hormone 0.02 mU/l, free thyroxine 83.6 pmol/l, triiodothyronine 2.03 nmol/l, and thyroglobulin 785 ng/dl. The impression at that time was of possible suppurative thyroiditis in an immunocompromised host. She was started on atenolol at 50 mg/day. A fine needle aspiration biopsy was performed to determine the aetiology of thyroiditis. Cytologically, there was benign thyroid epithelium with inflammatory debris as well as filamentous organisms with septate hyphae and acute angle branching (45 degrees) (fig 1A and B), consistent with *Aspergillus fumigatus* infection. The patient subsequently developed pulmonary lesions on chest radio-

graphy, which were also consistent with fungal pneumonia, but no organism could be cultured from the sputum. A disseminated infection with aspergillus was suspected. The patient was kept on the β -blockers for tachycardia, broad spectrum antibiotics, and antifungal agents. Despite all these efforts, her condition worsened and she died 10 days later.

Suppurative thyroiditis in patients with AIDS can be due to a variety of rare organisms, which includes bacteria (for example, *Salmonella enteritidis*), fungi (for example, *Aspergillus fumigatus*, *Coccidioides immitis*), and other opportunistic agents, such as *Pneumocystis carinii*. This case conveys an important message that fine needle aspiration biopsy should be performed on all such patients so that accurate diagnosis can be made and appropriate treatment administered.

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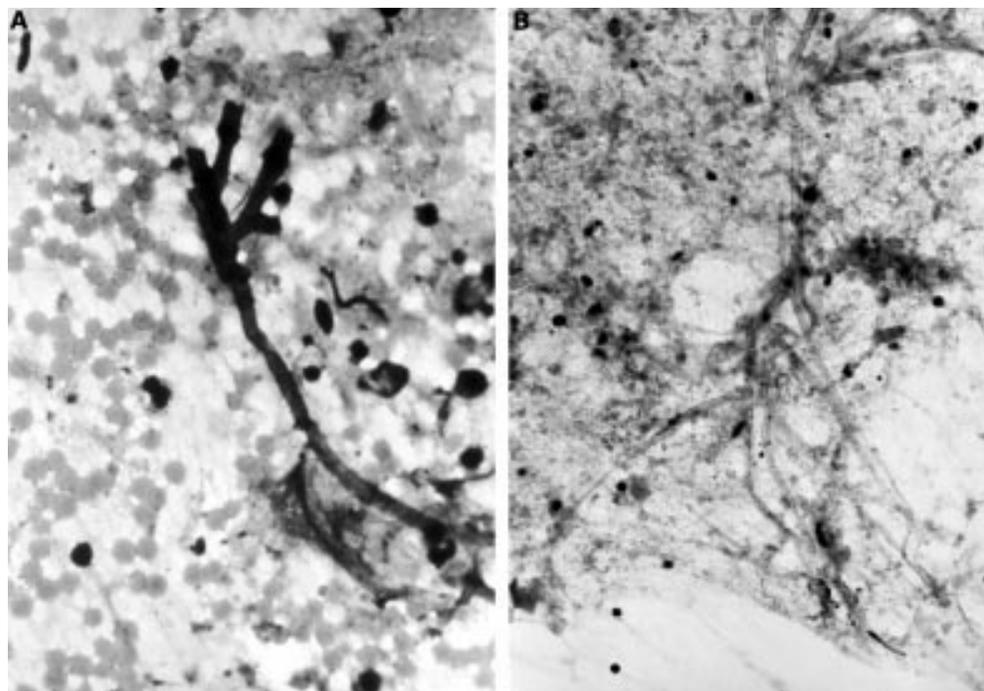


Figure 1 Fine needle aspiration biopsy showing filamentous organisms with acute angle branching of necrotic debris.