

## Case reports

### Allergic reaction following fine needle aspiration of a subcutaneous parasitic granuloma

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#### Introduction

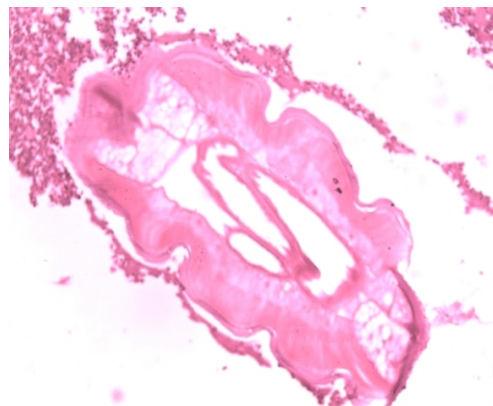
Fine-needle aspiration cytology (FNAC) is a simple and inexpensive test with minimal complications (1). We report an interesting and uncommon complication in a patient who developed features of mild anaphylaxis following FNAC of a parasitic granuloma.

#### Case report

A thirty one year old, otherwise healthy male underwent a FNAC of a 10x 10 mm nodule in the posterior auricular region using the routine technique. No local anaesthetic was used. One hour following the procedure, he complained of oedema surrounding the aspiration site and generalized itching with urticarial rash. He also complained of respiratory difficulty and had features of bronchospasm. He was admitted and treated with intravenous hydrocortisone, antihistamines, bronchodilators, nebulization and the symptoms improved within a day thereafter. The FNAC smears showed an inflammatory infiltrate comprising neutrophils, lymphocytes and scattered eosinophils. With the awareness of the allergic reaction following the procedure and due to the presence of eosinophils in the smears an underlying parasitic infestation was considered.

The scalp lump was excised and histology showed a parasite with surrounding inflammatory reaction (Fig. 1). The presence of double uteri and longitudinal striations in the

outer wall of the parasite typical of *Dirofilaria repens* were seen.



**Fig 1. *Dirofilaria repens* and surrounding inflammatory reaction (H&EX100)**

#### Discussion

*Dirofilaria repens*, a filarial nematode of dogs and other carnivores, can accidentally infect humans (2). Clinical symptoms are usually restricted to a subcutaneous nodule containing a single infertile parasite. Subcutaneous migration of the worm may result in local swellings with changing localization. In addition, rare cases of organ manifestation have been reported, affecting the lung, male genitals, female breast or the eye (3). The latter is found in particular during the migratory phase of the parasite. Human *Dirofilaria* (*Nochtiella*) *repens* is a common zoonotic infection in Sri Lanka (4).

These lesions can be referred to pathologists for FNAC as they can mimic lymphnodes and soft tissue lumps clinically.

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The secretions and excretions of the worm are extremely allergenic and hence trauma during the FNAC procedure can result in an anaphylactic reaction. Similar reactions have been observed with aspiration of hydatid cysts of liver (5). Subcutaneous nodules clinically resembling lipomas and lymphnodes can harbor *Dirofilaria repens* and it is worth to observe the patient following the FNAC procedure in such lesions.

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