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# Images in Clinical Tropical Medicine

## Filariasis Presenting as Massive Diffuse Cervical Swelling in Child

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Filariasis infection is common in India and causes a wide spectrum of clinical manifestations, namely, asymptomatic filariaemia, recurrent lymphadenitis, chronic lymphadenitis with swelling of the dependent limb, scrotal swelling, and tropical pulmonary eosinophilia. *Waucheria bancrofti* and *Brugia malayi* are the common species in India. *Waucheria bancrofti* is responsible for 90% of the cases.

An unusual presentation of common disease is being communicated. An 8-year-old male child presented with a history of cervical swelling along with mild fever for the last 1 month. Examination revealed a large tender cervical swelling measuring 10 × 8 cm on the right side (Figure 1). The child was otherwise normal and did not show enlargement of any other lymph node. Imaging studies suggested the possibility of neoplastic growth (Non-Hodgkin lymphoma/sarcoma). No fluid collections were seen. Ultrasound-guided fine-needle aspiration cytology (FNAC) was performed from different areas of the mass. Smears were stained with papanicolaou's stain (PAP) stain. All of the smears showed numerous sheated microfilariae admixed with inflammatory cells (morphologically consistent with *W. bancrofti*) (Figure 2). No granulomas necrosis, fungal organisms, atypical or malignant cells were seen. The hematological investigations showed 10% eosinophils on differential leukocyte count. Peripheral blood smear examination was negative for microfilariae. Filarial antigen test was also done, which was negative. The child was given diethyl carbamazine for 1 month. The child showed improvement within 1 week and the swelling subsided completely within 1 month.

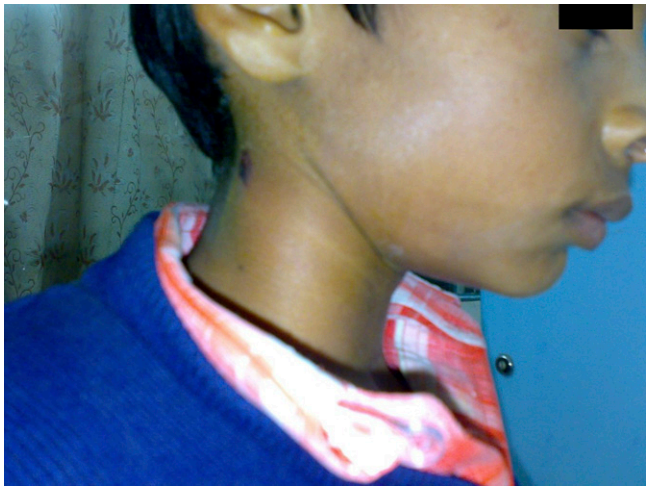

FIGURE 1. Child with massive cervical swelling.

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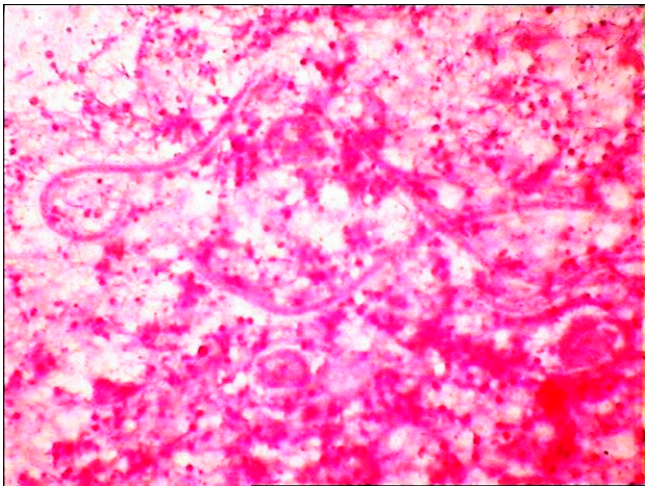

FIGURE 2. H&E stained smears showing many microfilariae (20 × 10).

Filariasis is endemic in India and a majority of the children are asymptomatic. Few may develop hydrocele, acute disease in the form of either acute adenolymphangitis or dermal adenolymphangitis. In our case, the child had massive cervical swelling and mild fever and was diagnosed accurately by FNAC. Common methods of diagnosis of filariasis are a demonstration of microfilariae in stained or unstained blood films, circulating filarial antigen detection, and a demonstration of organism in histopathological sections. Fluid cytology or FNAC are rarely applied for routine diagnosis of clinically suspected filariasis, however, various studies have shown the usefulness of FNAC in diagnosing filarial infection at various sites. Mitra and others[1] studied 250 cases of superficial swellings at various sites and detected microfilariae in 24 cases. Varghese and others[2] detected microfilariae in six cases by FNAC and showed that careful screening of FNAC smears might be helpful in the detection of microfilarie. In their study, cytology played a significant role in early detection of the disease and institution of specific therapy as in our case. Therefore, FNAC is a rapid and reliable diagnostic test for detection of filarial infection.

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