LYMPHOGRAPHIA

DRAMATIC MANIFESTATIONS OF FILARIAL INFECTION (W. BANCROFTI)

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Although Gasparo Aselli is credited with the discovery of the lymphatic system in 1627, in point of fact the filarial nematode preempted his discovery having made lymphatics and lymph nodes its primary habitat for many millennia. Typically, patients with microfilarial infection present with lymphangitis, lymphadenitis and fever, but many are asymptomatic. In terms of clinical manifestations, peripheral lymphedema is next in order of frequency with a striking predilection for one extremity. Indeed in our experience with more than 3600 patients with filariasis over the past 16 years, more than 80% had unilateral limb (mainly leg) involvement and only 10% bilateral leg lymphedema. Involvement of the genitalia and breast although less common are also well-recognized sites for filarial infection.

Comment: Whereas filariasis involves much more than simple lymph stasis, the grotesque deformities characterized by intense swelling and fibrosis with warty overgrowth vividly portray what may happen when a severe, unremitting restriction develops to the free flow of tissue fluid.

Fig. 1: Acute W. bancrofti filarial infection with femoral adenopathy (nodule) in a 12-year-old boy (A); another patient with early onset of marked lower leg and dorsal pedal edema (B); nonbacterial antecubital lymphangitis from filariasis—variant “Mondor’s disease” (C).
Fig. 2: Grotesque patterns of unilateral and bilateral leg lymphedema occasionally complicated by scrotal enlargement associated with longstanding W. bancrofti infection.
Fig. 3: Fine and coarse warty overgrowth of the feet associated with filarial elephantiasis.

A: Asymmetric "peau d'orange" with vitiligo
C: Massive clitoral lymphedema

D: Severe penile elephantiasis ("ram-horn" penis)

B: Massive breast engorgement

Fig. 4: Breast (A,B) and genital filariasis (C,D). Although much less common than peripheral lymphedema, these areas are also sites of filarial migration.