

During population-wide cross-sectional surveys for *Wuchereria bancrofti* microfilaremia, circulating antigenaemia, and clinical disease in a high and a low endemicity community in East Africa in 1998, a portable ultrasound scanner was used simultaneously to examine the scrotal tissue of the male populations ($n = 422$ and 328 , respectively) for signs of adult worms. The overall microfilaria (mf) and circulating filarial antigen (CFA) prevalences in the scanned males were 30.8% and 53.6% in the high and 4.3% and 19.8% in the low endemicity community, respectively. During ultrasound examination, the filaria dance sign (FDS)--indicating the presence of live adult *W. bancrofti* worms--was observed in 16.1% and 6.7% of the males in these communities, respectively. This examination also revealed that subclinical hydrocoele (fluid accumulation in the scrotal sac, not detected during physical examination for clinical hydrocoele) was very common, affecting 25.3% and 15.5% of the examined males in the high and low endemicity community, respectively. Both of these ultrasonographic signs started to appear around the age of puberty and were most common in adults. In the high endemicity community, the prevalence and mean intensity of mf and CFA were considerably higher in FDS-positive than in FDS-negative adult males, whereas no obvious difference in these parameters was noted between adult males with and without subclinical or the combination of clinical and subclinical hydrocoele. Associations were less clear in the low endemicity community, probably because of the low number of infected individuals. The application of ultrasonography as a tool in bancroftian filariasis epidemiological field studies thus indicated that scrotal pathology may be much more common in endemic areas than hitherto reported.