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# Analysis of the 24-h microfilarial periodicity of *Mansonella perstans*

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## Abstract

The *Mansonella perstans* microfilarial (mf) periodicity in peripheral blood was analysed in a group of 32 healthy individuals from an endemic community in Uganda. The majority of individuals had maximum mf intensity during the first and minimum during the last 12 h of the day. Mean mf ratios (i.e. time-specific counts in relation to mean count for the individual) indicated a weak but significant diurnal periodicity with peak intensity around 0800 h. Trigonometric analysis of the ratios, assuming a harmonic wave pattern of periodicity, gave a periodicity index of 11.1 and a peak time of 0645 h. The higher mf intensities in the early morning appeared to coincide with the preferred biting hour of the vectors. The observed weak pattern of mf periodicity indicates that the sampling time of blood specimens for diagnosis will have only minor effect on diagnostic sensitivity.

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