

**Excretion patterns of *Schistosoma mansoni* circulating antigens CAA and CCA by adult male and female worms, using a mouse model and *ex vivo* parasite culture.**

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Assays which enable the detection of schistosome gut-associated circulating anodic (CAA) and cathodic (CCA) antigen are increasingly used as a diagnostic tool on serum or urine of the host. However, very little is known about the excretion patterns of these circulating antigens in particular in relation to the sex and reproductive maturity of the parasite. Here we describe CAA and CCA excretion patterns by exploring a mouse model after exposure to male-only, female-only and mixed (male/female) *Schistosoma mansoni* cercariae. We found that serum and urine CAA levels, analysed at 3 weeks intervals, peaked at 6 weeks. Recovered worms were cultured for another 8 days after perfusion at week 14. Male parasites were found to excrete more circulating antigen than females, in the mouse as well as in culture. In mixed infections, serum CAA levels correlated better to the number of recovered worms than to eggs or *Schistosoma* DNA in stool. In culture, CAA levels were higher than CCA levels. This study confirms that CAA levels reflect worm burden and shows that CAA allows detection of low level single sex infections where no eggs are present.