

IMMUNO-MAGNETIC BEADS ELISA FOR DIAGNOSIS OF SCHISTOSOMA MANSONI INFECTION

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Diagnosis of *Schistosoma mansoni* infection is a challenge in low transmission regions. Serological diagnosis proved more sensitive and extensively used to detect anti- *Schistosoma* antibodies. This study evaluated the immunomagnetic beads-enzyme-linked immunosorbent assay (IMB-ELISA) for diagnosing *S. mansoni* infection in comparison with the commercial IHA, indirect ELISA and microscopy stool examination. A total of 100 subjects were divided into four groups (25 each). G1: cases actively passing *S. mansoni* eggs, G2: chronic cases of *S. mansoni*, G3: cases with other parasitosis and G4: normal healthy subjects.

The *S. mansoni* diagnostic rate was 25%, 46%, 48%, & 50% by parasitological, IHA, Indirect ELISA & IMB-ELISA, respectively. In G1, the four tests gave positivity rates of 100%, 88%, 96%, & 100%, respectively. In G2, the four tests gave 0%, 84%, 88% & 96%, respectively. Sensitivity of various tests were estimated in relation to total true positive *S. mansoni* cases (G1& G2), and gave 50%, 86%, 92% & 98% for the applied tests, respectively. Cross-reactivity rates were estimated in relation to *S. mansoni* negative cases (G3 & G4). Specificity rates were 100%, 94%, 96% & 98%, respectively.

Key words: Fayoum University Hospitals, *Schistosoma mansoni*, Magnetic beads, ELISA, IHA