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قسم الطفيليات الطبية-كلية الطب- جامعة الفيوم

## **Research No.(٢):**

### **Modified dot-ELISA for diagnosis of human trichinellosis.**

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This study aimed to modify Dot-Enzyme-linked immunosorbent assay (dot-ELISA) for the diagnosis of human trichinellosis and to compare its performance with indirect ELISA and Western-blot assay (EITB).

A total of 175 human serum samples were enrolled in the study. Indirect ELISA was used for the primary diagnosis. EITB versus fractionated 1st larval stage excretory-secretory antigens (TL-1 ESA) revealed three specific protein fractions at MW of 45, 50, and 55 kDa (kDa). Dot-ELISA was performed in two ways. In the first one, sera were dotted on the separated three specific protein fractions, while in the second one the three fractions were eluted, concentrated at one pooled antigen that used in classic dot-ELISA.

Both types of dot-ELISA proved absolute (100%) sensitivity and specificity in comparison with the gold standard EITB reaction. While sensitivity of ELISA was 100% and its specificity was 79.5%. The fraction at 45 kDa was the most sensitive one. The use of the pooled antigen improved the test results. The described dot-ELISA is an easy applicable diagnostic tool gathering the benefits of both ELISA and EITB.

