Evaluation of an immunoenzyme technique (ELISA) to diagnose typhoid fever

Evaluación de un ensayo inmunoenzimático (ELISA) para el diagnóstico de la fiebre tifoídea.

Figueroa,

Jashés,

Fáundez,

Toledo,

Troncoso,

Aguad,

The efficiency of an ELISA method, designed to detect polyvalent IgG and IgM antibodies to Salmonella typhi polysaccharide was evaluated in patients admitted or convalescing from typhoid fever and in control subjects. Polyvalent antibodies to S typhi were demonstrated in 28/30 (93%) typhoid patients, 0/11 bacteremic patients (E coli or S paratyphi A) and 0/15 asymptomatic individuals. Widal test showed significant anti-0 agglutinin values (> = 1: 160) in only 12/30 (40%), 1/11 (9%) and 0/15 subjects from each group respectively. Typhoid patients tested on admission or at discharge showed similar high reactivity rates to ELISA. On the contrary, the Widal test detected only 2/15 (13%) patients on admission ($p < 0.02$) and 10/15 (67%) at discharge. These results and additional immunoblotting tests suggest that ELISA developed to detect polyvalent anti-LPS antibodies could represent a highly specific diagnostic tool to confirm typhoid fever in endemic areas.