RE-EVALUATION OF COMMERCIAL AVAILABLE ENZYME-LINKED IMMUNOSORBENT ASSAY FOR THE DETECTION OF GIARDIA LAMBLIA AND CRYPTOSPORIDIUM SPP FROM STOOL SAMPLES


This study aimed to detect *Giardia lamblia* and *Cryptosporidium* spp infection from stool specimens. A total of 345 stool specimens were examined by microscopy (both direct smear and formalin concentration) and EIA techniques (ProSpecT Microplate Assay) for *G. lamblia* and *Cryptosporidium* spp. Of 73 tests positive for *G. lamblia*, 41 (56.2%) were positive by microscopy, and 71 (97.3%) were positive by EIA. Of 16 tests positive for *Cryptosporidium* spp, 5 (31.3%) were positive by microscopy, and 16 (100%) were positive by EIA technique. The results demonstrate that this EIA method is quick, simple, and more sensitive than the microscopy method and should be used for the detection of *G. lamblia* and *Cryptosporidium* spp where the prevalence of these protozoan parasites is a public health problem.


SIGNIFICANTLY INCREASED RECOVERY OF INTESTINAL PARASITES ON ROUTINE STOOL SPECIMEN EVALUATION


Three hundred thirty-six stool samples from October 2001 through October 2002 were analyzed for the presence of intestinal parasites. Fifty-six of these (16.7%) were positive for a total of 66 parasites; 65/66 (98.5%) were detected by iodine and dimethyl sulfoxide-modified acid-fast (DMSO-mAFB) stained smears of fresh and formalin-ethylacetate sedimentation concentrated samples. Saline, iodine, and DMSO-mAFB stained smears of fresh stool samples alone detected significantly fewer parasites, finding only 50/66 (75.8%) (p < 0.05). Stool samples analyzed by trichrome stained specimens preserved in Zinc sulfate polyvinyl alcohol (Zinc PVA) detected only 41/66 (62.2%) of the parasites. In our study population, it was necessary to perform the National Committee for Clinical Laboratory Standard (NCCLS) recommended to accurately detect intestinal parasites. The concentration technique is simple and significantly increased the detection of intestinal parasites.