

## ABSTRACT

### INTESTINAL PARASITE PREVALENCE IN OCORONI, SINALOA, MEXICO

Human parasitism continues to be a global problem. This study assessed intestinal parasite burden in a population in rural Mexico centered on Ocoroni, Sinaloa. The objectives were to 1) evaluate the prevalence of common intestinal parasites, 2) reduce parasite transmission with medication and education, and 3) evaluate the efficacy of fecal DNA extraction and confirmation of the presence of ascarids by polymerase chain reaction (PCR) amplification of nuclear DNA fragments. The population was sampled twice, with anti-parasitic treatment and education between sampling. In a combined data set of 114 people, the protozoal parasites *G. intestinalis* and *C. parvum*, and the nematode *A. lumbricoides* were found at prevalences of 13.0%, 14.7%, and 16.9%, respectively, as determined by fecal flotation, IFA, ELISA, and PCR-based tests. The PCR-based test for the nematode provided 100% confirmation of flotation-derived detection. The agent of amoebic dysentery, *E. histolytica*, was not recovered. No significant associations were found between parasite prevalence and age, sex, water source, and home town. Assessment of the effect of anti-parasitic drug treatment and education on parasite prevalence was not possible, as the second population sample was largely independent of the first.

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