

Abstract

This study aimed for serological detection of giardiasis in children with diarrhea. The present study included the acquisition of 126 faecal specimens from a diverse cohort of children spanning all genders and age ranges. These samples were submitted to the laboratory located in Babylon province, Iraq, on many occasions over the period from 2020 to 2022. The gathered specimens were recorded in a tabular format, subsequently leading to the transportation of all faecal samples to the laboratory. Following this, a thorough examination of all samples was conducted using a light microscope, and any samples that raised concerns were subjected to further analysis employing a serological methodology. All samples that were predominantly recognized as *G. lamblia* in the laboratory were subjected to examination using a serological test. The serological test used an ELISA kit manufactured by Sanlong, and the instructions provided by the manufacturer were followed. The overall prevalence of *G. lamblia* infection in Babylon city was found to be 5.6%. Specifically, the infection rate among men was 4.1%, while among females it was 6.5%. In relation to the age cohorts, all participants under study were categorized into three distinct age groups. Notably, the age group including persons aged 6-10 years exhibited the greatest infection rate at 7.1%. Additionally, infection rates of 4.4% and 2.6% were seen in the age groups of 1-5 years and above 10 years, respectively. Infections were seen in faeces samples exhibiting semi-formed consistency, loose

consistency, and watery consistency, as indicated by the stool types. The prevalence of infection was greater in the loose type.

In conclusion, the present cross-sectional investigation indicates that the incidence of giardiasis in Babylon city is very low. Based on the findings, it can be inferred that the incidence of *G. lamblia* infection among children is also low. Furthermore, no significant variations were observed in relation to stool type and gender. Nevertheless, it is crucial to implement targeted and appropriate health programmes for the prevention of this disease. Keywords: Giardia, Babylon, children, sex, age.