EVALUATION OF PARASITOLOGICAL DIAGNOSTIC METHODS IN PRESCHOOL CHILDREN IN NATAL-RN

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Intestinal parasites are the cause of numerous diseases, which affect a large portion of the world population, especially children. Several methods are used to diagnose these parasites, which makes it necessary to evaluate and compare them. Thus, the positivity of three parasitological diagnostic methods (Hoffman, Pons and Janer - HPJ, Rugai and Willis-Mollay), together with the perianal imprint by the Graham method, was analyzed in preschool children from Municipal Child Education Centers in Natal-RN, which was approved by the ethics committee (CAAE 59703022.7.0000.5537). A total of 66 stool samples were obtained from the children, which were tested for the HPJ, Rugai and Willis-Mollay methods, and 39 slides with the perianal imprint. From them 26 samples were positive (39.3%) for helminths and/or protozoa, regardless of the method used, with *Ascaris lumbricoides* being the most frequent, followed by *Entamoeba coli* and hookworms (25%, 22.72% and 20.45%, respectively). Among the 26 positive samples, monoparasitism (50%), biparasitism (30.8%) and polyparasitism (19.2%) were observed, with the most frequent association between *A. lumbricoides* and *E.coli* (30.8%). Regarding to the parasitological methods, Graham was positive for only three samples (7.7%), exclusively for *Enterobius vermicularis*, while HPJ, Rugai and Willis-Mollay obtained positivity of 25.8%, 21.2% and 10.6%, respectively. The HPJ method showed the highest positivity for helminths (52.9%) and Willis-Mollay showed the highest positivity for protozoa (57.1%). Thus, it could be concluded that these methods have limitations, and that the use of more than one method is essential to obtain a more accurate diagnosis.

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