

Intestinal coccidian parasites in a group of immunocompetent Polish travellers

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Intestinal coccidia are intracellular parasites most frequently transmitted via the fecal-oral route. The most common invasions are food-borne (unwashed fruit, vegetables, herbs) and waterborne (lakes, rivers, contamination of drinking water sources). Although these parasites are widely known to be a cause of diarrhoea among immunocompromised patients, such parasites are also detected among immunocompetent persons including travellers and are treated as an etiologic factor in such forms of diarrhoea.

The examination involved 142 immunocompetent patients hospitalised in KChTiP (The Clinic of Tropical and Parasitic Diseases) with diarrhoea and symptoms related to their digestive systems. The aim of the present epidemiologic investigation was to determine the main risk factors of intestinal coccidia. A basic microscopic examination of stool samples was performed: a thin smear of faeces (0.9% NaCl), a thick smear of faeces (Kato-Miura method), and an examination based on the Ziehl-Neelsen method.

Intestinal coccidia were detected in nine out of 142 successively hospitalised patients (6.3%). The most common parasite was *Cryptosporidium* sp., which was detected in seven cases (4.9%). The second detected parasite was *Cystoisospora* sp., detected in two cases. The least common type was *Cyclospora* sp. with only one diagnosis (0.7%).

Consumption of unwashed fruit, vegetables, and local, non-heat-treated meals were defined as the main risk factors of intestinal coccidia. Watery diarrhoea was deemed the most common symptom: all people infected with coccidia suffered from this symptom. Almost all the patients also suffered from abdominal pain. However, anorexia, nausea, flatulence, and fever were not so frequent. Intestinal coccidia were successfully treated with co-trimoxazole. The findings indicate that intestinal coccidia are a significant danger for immunocompetent people who travel. Hence, it is recommended to examine anyone who presents symptoms associated with the digestive system, especially those who suffer from watery diarrhoea, for *Cryptosporidium* sp., *Cystoisospora* sp., and *Cyclospora* sp. It was also found that Polish tourists are not sufficiently aware of dangers resulting from travelling, especially to countries with a low sanitary standard.