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Irritable bowel syndrome and chronic fatigue ten years after a giardia outbreak: a controlled prospective cohort study

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Background & Aim: Irritable Bowel Syndrome (IBS) is a known complication following gastrointestinal infection, whereas chronic fatigue (CF) has been scarcely investigated in this setting. Our research group has previously investigated the prevalence of IBS and CF three and six years after a large outbreak of giardiasis in Bergen, Norway. A prevalence of IBS of 46.1% was found in the Giardia exposed three years after the outbreak, and 39.4% six years after. The corresponding prevalence among controls was 14.0% and 11.6%. The prevalence of CF declined from 46.1% to 30.8% in the same period. Corresponding prevalence among controls were 12.0% and 11.0%. The aims of the current study were to estimate the prevalence of IBS and CF ten years after the outbreak and to investigate changes in prevalence over time.

Method: Prospective controlled cohort study of 1252 individuals with laboratory confirmed Giardia lamblia. Questionnaires were mailed to all Giardia exposed and matched controls three, six and ten years following acute infection. Data were compared for the cohorts for each point of follow-up.

Results: The response rate for the ten-year follow-up was 50% among exposed and 30% among controls. Preliminary analyses of these data show a prevalence of IBS of 42.6% in the exposed group, as compared to 14.1% in the control group (RR 3.02, 95% CI 2.46 to 3.71). The prevalence of CF was 26.1% in the exposed and 10.5% in the control group (RR 2.48, 95% CI 1.92 to 3.2).

Conclusions: Infection with Giardia lamblia in a non-endemic area is associated with an increased risk of both IBS and CF up to ten years later. The prevalence of IBS remained high with little change from six to ten years after the initial infection, whereas the prevalence of CF declined from six to ten years.