

## Palmoplantar Pruritus Subsiding after *Blastocystis hominis* Eradication

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Sir,

Despite more than 80 years of controversial debate since its first description by Alexieff in 1911 (1), most issues regarding *Blastocystis hominis* – taxonomy, epidemiology, pathogenicity, mode of transmission, clinical significance and therapy – have still to be resolved satisfactorily (2). While some authors consider *B. hominis* as a commensal protozoan without pathogenic significance (3–5), others suggest that it could cause gastrointestinal symptoms, such as diarrhoea, abdominal pain or discomfort, cramps, flatulence and nausea (6–8). In addition, an association of urticaria and *B. hominis* infection has been reported in 10 patients, and treatment with paromomycin cured the urticaria in these cases (9). Cutaneous rashes and itching might be further clinical variants of *B. hominis* infection (10).

### CASE REPORT AND DISCUSSION

A 35-year-old woman presented with a 2-year history of attacks of intense palmoplantar itching, occurring predominantly at night. Initial symptomatic treatment with oral antihistamines did not yield significant improvement. Physical examination revealed no apparent skin lesions in the area involved. Differential blood cell count, including eosinophils, serum concentrations of electrolytes, creatinine, bilirubin, alkaline phosphatase, urea and glucose, as well as urine status, were all within normal limits. A search for possible underlying internal disease was unsuccessful. In particular, there were no indications of renal or hepatic disorders, autoimmune diseases, endocrinological diseases, hereditary angioedema or mastocytosis. Neurological examination disclosed no pathological findings. Since palmoplantar pruritus could be interpreted as an equivalent of urticaria, and since infection by some intestinal parasites can be associated with chronic urticaria, stool examinations were performed. *B. hominis* was identified in fecal samples on three different days by microscopic investigation; parasites such as worms, *Amoeba*, *Lambli*a, *Cryptosporidia* and *Candida* spp. were not detected. The patient was treated for 7 days by oral administration of

paromomycin at a dose of about 25 mg/kg bodyweight (three times 500 mg daily). After a short exacerbation of the complaints on the second day of treatment, palmoplantar pruritus began to decrease on the third day, before completely subsiding and has not recurred now for 6 months. Three further stool analyses performed 1 month after treatment were negative for *B. hominis*.

This course suggests that infection by *B. hominis* was the cause of unbearable palmoplantar pruritus in this patient. The initial aggravation of the condition could indicate an underlying immunological mechanism quickly enhanced by antigen released from degraded *B. hominis* at the beginning of therapy.

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