

Case report

Persistent shigellosis

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SUMMARY *Shigella* usually causes a selflimited infection which untreated lasts on average seven days (range one to 30 days).¹ We report a patient who had persistent symptoms for 10 months caused by *Shigella flexneri* which was finally identified on cultures from a rectal swab.

Case history

A 23 year old woman was well until she and several others developed acute diarrhoea whilst in Turkey. Unlike her fellow travellers, her diarrhoea, tenesmus, and occasional rectal bleeding persisted even when she returned home five months later.

Stool microscopy and culture was negative on three occasions and a seven day course of metronidazole produced no improvement in her symptoms. She was seen in clinic 10 months after the onset of her symptoms. She was passing three to four loose stools per day usually with mucus and some blood. She was well nourished and physical examination was normal. Full blood count, ESR, biochemical profile, and orosomucoids were all within normal limits. Two further stool cultures were negative.

Sigmoidoscopy showed a reddened rectal mucosa, some pus but no mucosal ulceration. A rectal biopsy was taken which was histologically normal apart from some rather prominent blood vessels. A rectal swab was taken of the pus from which *Shigella flexneri* (serotype 1b; sensitive to trimethoprim) was isolated. Her symptoms settled completely after a one week course of trimethoprim and she remains well over two years later.

Discussion

Infection with one of the shigella species usually

causes an acute dysentery lasting one to 30 days which resolves without specific treatment. There have been no previous reports of *Shigella flexneri* causing symptoms over such a prolonged period, although a carrier state may rarely occur particularly in the malnourished individual.^{1,2}

Shigella flexneri was probably responsible for her symptoms persisting over 10 months; several other travellers also developed acute diarrhoea at the same time suggesting an infective aetiology. Her symptoms persisted from that time but once the organism was isolated from the rectal swab, her symptoms rapidly and permanently resolved with trimethoprim. There were also no specific features of idiopathic inflammatory bowel disease, but there is no absolute proof that the shigella was solely responsible for her illness because the organism was not isolated at the onset of her symptoms.

Stool microscopy and cultures had been negative on five occasions, a reminder that rectal swabs may be necessary to isolate this organism particularly in the later stages of the disease.³ This may be because of a larger concentration of the organism in close proximity to the epithelium rather than within the bowel lumen. This may be particularly important in chronic cases when the total number of pathogens is much less than in the acute phase of dysentery.

Rectal swabs should be taken from patients with persistent symptoms even when there is no mucosal ulceration and previous stool cultures have been negative. The rectal swab should be taken to the laboratory and plated out onto culture medium promptly as the delay should be minimised to culture this organism successfully.¹

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Received for publication 16 March 1988.

Negative stool cultures are usually assumed to exclude shigellosis and its continued carriage in known cases. *Shigella* was only identified by culture from a rectal swab and this may also have important implications for the epidemiology of this infection and for the study of the so-called 'postinfective diarrhoea syndrome' in which mild diarrhoea may persist for months after an initial infective episode and its differentiation from idiopathic inflammatory bowel disease.

References

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