Human infestation by *Taenia saginata* lasting over 20 years

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Summary

A case of a 61-year-old woman with a history of infestation by *Taenia saginata* lasting over 20 years is described. The patient repeatedly denied eating raw or inadequately cooked beef. Despite many attempts using different taenicides during those years, the patient continued to pass tapeworm segments until niclosamide was administered. Eighteen months after treatment with niclosamide the patient remains symptom-free.

KEY WORDS: thyrotoxicosis, mepacrine.

Introduction

Taenia saginata, the beef tapeworm, is probably the commonest of the tapeworms affecting man. Although chronic infestation by *T. saginata* is referred to in modern reviews (Seaton, 1979; Benenson, 1980) there are few detailed case reports describing long-term carriage. This report describes a case of *T. saginata* infection lasting over 20 years, and a good response to niclosamide.

Case report

In December 1957 a 37-year-old housewife developed mild abdominal pain and a loss of appetite, and she noticed for the first time white segments in her stools. When admitted to hospital 6 months later she was pale, thin and had generalized abdominal tenderness. Investigation showed haemoglobin 11.2 g/dl, white cell count 8.5×10^9 /litre with 12% eosinophils. Several segments from a stool sample were identified as *Taenia saginata*. Following treatment with a fluid diet, saline purge and enema, male fern and mepacrine, all of the worm except the head was expelled. On further enquiry the patient gave no history of foreign travel, contact with cattle or eating raw or inadequately cooked beef. Three months later there was a recurrence of symptoms and the same

treatment was given; the patient was not subsequently examined for clearance of the infection.

In May 1972, following the repair of an inguinal hernia, the patient complained that during the previous 12 years she had passed occasional tapeworm segments in her stools. After treatment with mepacrine and a magnesium sulphate enema, long segments of *T. saginata* were again recovered. Although symptoms returned after about 10 months the patient did not seek medical attention again until June 1974 when an unknown taenicide was administered. Carbimazole and radioiodine were given in 1979 for a toxic thyroid nodule.

During April 1981 the patient complained of seeing tapeworm segments in her stools intermittently for several months but treatment with dichlorophen was soon stopped because of severe nausea and abdominal pain. A month later niclosamide, 2 g, was given orally as a single dose; the treatment was well tolerated and no segments were noticed in the stool by the patient during the following 18 months.

Discussion

Human infection with *Taenia saginata* is an uncommon problem in Britain at present with only about 80 cases reported to the PHLS Communicable Disease Surveillance Centre (unpublished data) annually. The clinical manifestations of tapeworm infestations are often mild so that infections often go unrecognized and therefore untreated for many months.

Penfold (1937) reviewing 100 cases reported an average duration of recognized infestation by *T. saginata* of 13 years with a maximum of 60 years and Swartzwelder (1939) described five cases with durations of excretion from 6 to 20 years. However neither of these reports gave detailed case histories of those patients with chronic infestation, nor to the best of our knowledge are there any other detailed case reports of long-term *T. saginata* infection.

Human infections with *T. saginata* are usually acquired by eating raw or undercooked beef. Our

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patient consistently denied eating this type of meat. Her family doctor described her as mentally normal, and has no suspicions about her eating habits.

Over the years taenicides have greatly improved and one possible explanation for the long-term carriage of tapeworms reported by Penfold (1937) and Swartzwelder (1939) may be the unavailability of effective treatment at that time. Indeed our patient was cured, following several previous attempts at treatment, only when a relatively new taenicide, niclosamide, was used. Pawlowski and Schultz (1972) stated that niclosamide is the drug of choice for *T. saginata* infection of man.

Although it is impossible to confirm that our patient has had the same tapeworm for over 20 years we believe that the lack of evidence of continuing exposure to potential sources of infection, together

with the lack of response to less effective treatment, followed by the good results achieved with niclosamide indicates that this patient is likely to have had a chronic infection by *T. saginata*.

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