

## Recurrent colitis following antibiotic-associated pseudomembranous colitis

JOHN DAVIES  
M.B., M.R.C.P.

ERIC BECK  
B.Sc., M.B., F.R.C.P.

*Whittington Hospital, London N19 5NF*

### Summary

**A patient who developed severe pseudomembranous colitis following clindamycin therapy, and who went on to have recurrent attacks of non-specific colitis, histologically confirmed over the following 19 months, is described.**

### Introduction

Pseudomembranous colitis after clindamycin is a well recognized unwanted effect of this antibiotic (Benner and Tellman, 1970; Cohen, McNeill and Wells, 1973; Viteri, Howard and Duck, 1974). Although fatalities occur, this condition is generally self-limiting, and usually does not last more than a few weeks.

### Case report

A 58-year-old woman had had severe crippling rheumatoid arthritis for 12 years. Following several operations to both hands, she had bilateral hip replacement. Her right prosthetic hip became infected and was removed, but she was left with a chronically discharging sinus. Several months' therapy with oxytetracycline resulted in little improvement and she was therefore started on clindamycin. Ten days later, she developed severe abdominal pain and diarrhoea. Sigmoidoscopy showed an inflamed, friable, oedematous mucosa with raised plaque-like lesions, typical of pseudomembranous colitis. Rectal biopsy (Fig. 1) showed an acute pyogenic inflammation with focal erosions and a fibrinopurulent exudate, again typical of pseudomembranous colitis.

Barium enema showed fine serrations of the colonic margin extending from rectum to caecum, strongly suggestive of pseudomembranous colitis (Fig. 2).

Clindamycin was stopped and she was at first treated with prednisolone enemata, with no effect. She became increasingly ill with high fever and a persisting diarrhoea. She developed leucocytosis and anaemia, requiring repeated blood transfusions and intravenous feeding. As this illness occurred before vancomycin had become the established treatment

for pseudomembranous colitis, and in view of her deteriorating clinical condition, she was started on high doses of oral prednisolone. Her general state improved considerably, but bowel frequency was

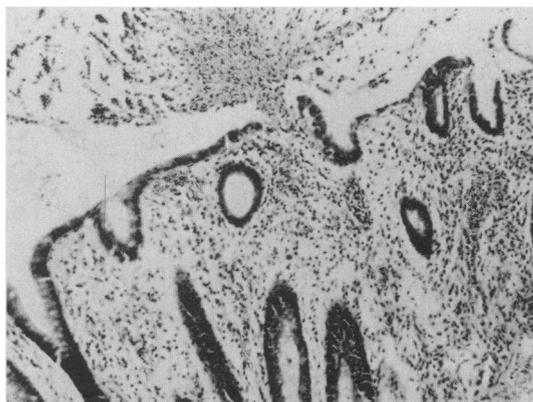


FIG. 1. Colonic biopsy showing pyogenic inflammation with focal erosions and the formation of a fibrinopurulent exudate typical of a pseudomembranous colitis.

little altered. Following treatment for one week with cholestyramine, her bowel habit returned to normal. Three weeks later, she was asymptomatic, but sigmoidoscopy was still abnormal and rectal biopsy showed chronic inflammation. A barium enema in the convalescent period showed the same changes as the first one.

During the following 19 months she remained reasonably well despite seriously disabling, painful arthritis and a chronically discharging sinus. However, she suffered several attacks of colitis when sigmoidoscopy showed moderate to severe proctocolitis on each occasion. These further attacks responded well to codeine phosphate and prednisolone enemata. Rectal biopsies were all abnormal, including the most recent biopsy (Fig. 3), taken 19 months following her initial attack, which

still showed chronic inflammatory changes. At the time of this last biopsy, however, barium enema examination was normal. She has suffered no further bowel symptoms over the following 2 years.

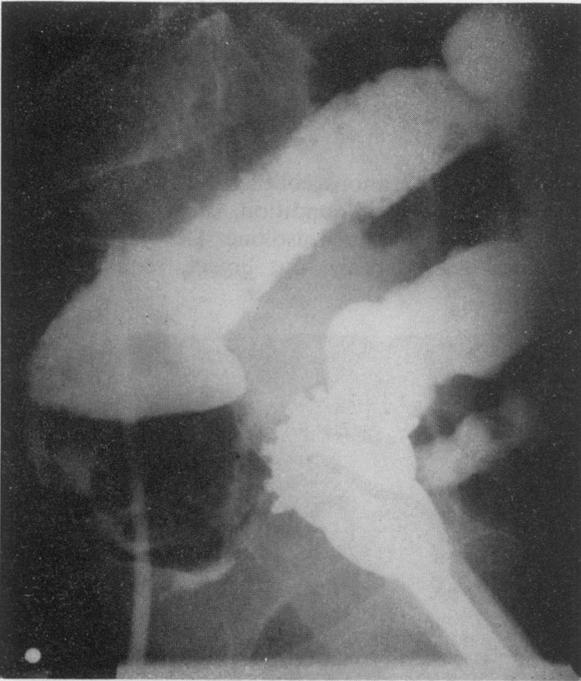


FIG. 2. Barium enema showing fine serrations along the colonic margin, extending from rectum to caecum.

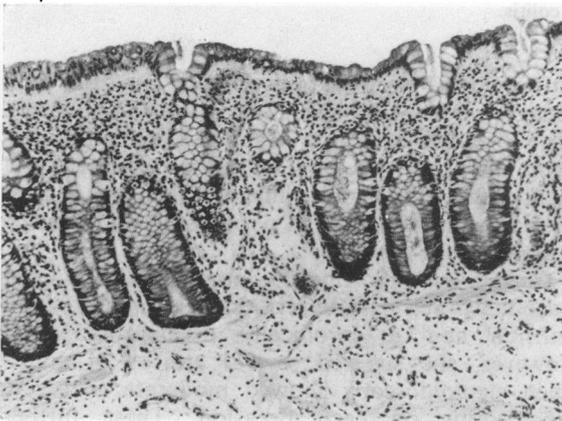


FIG. 3. Colonic biopsy showing chronic inflammatory changes with plasma cells and eosinophils in excess. Paneth cells are present and there is irregular hypertrophy and splitting of the muscularis mucosae.

### Discussion

Tedesco, Barton and Alpers (1974) followed-up 20 patients from 6 weeks to 6 months following recovery from clindamycin-induced colitis, and found a normal appearance on proctoscopy in all. One patient died following a pulmonary embolus, and the colon was found to be histologically normal at post-mortem examination. Similar results have been reported by Stroehlein *et al.* (1974), LeFrook *et al.* (1975) and Sumner and Tedesco (1975).

Wilkinson (1974) reported a case of pseudomembranous colitis where there had been 2 episodes of non-specific colitis occurring 9 months later, not associated with further antibiotic therapy.

Considering other possible aetiologies, this patient has never had any of the clinical, radiological or pathological appearances of ulcerative, Crohn's or ischaemic colitis. Specific tests for amyloid have always been negative. In the well recognized association of arthritis and ulcerative colitis, the colitis invariably precedes the arthritis, which in turn is generally asymmetrical or often involving only one joint (Wright and Watkinson, 1965). It is therefore highly unlikely that the colitis in this patient was in any way related to her long-standing rheumatoid arthritis.

Since this patient was studied, good evidence has been presented implicating *Clostridium difficile* and its toxin as the cause of antibiotic-associated colitis (Leading Article, 1978). It has been suggested that the antibiotic facilitates the overgrowth of these organisms and that the condition should in turn be treated with vancomycin (Tedesco *et al.* 1978).

In the convalescent period *C. difficile* was looked for, but not isolated from this patient's formal stool.

This is the report of a definite case of clindamycin-associated pseudomembranous colitis with classical histological appearances, recurring over a 19-month period. The non-specific appearances make it impossible to categorize it as either a case of persisting pseudomembranous colitis in a less florid form, or as a true progression to ulcerative colitis.

The findings in this case raise the possibility that these attacks of non-specific colitis were related to the original attack of pseudomembranous colitis. In view of the unknown cause of most cases of non-specific colitis, and indeed of ulcerative colitis, it is suggested that a careful antibiotic history at the time of diagnosis might throw further light on possible aetiology, and that more cases of antibiotic-associated colitis may be discovered.

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