

The Diagnosis of Pseudomembranous Colitis by Rectal Biopsy

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It is important to be able to recognize the characteristic features of pseudomembranous colitis in a rectal biopsy (McGovern 1972) for it is an urgent diagnosis and one that both clinically and radiologically is hard to distinguish from the acute forms of ulcerative colitis and Crohn's disease. Rectal biopsy can be diagnostic and to emphasize this we are presenting 6 such cases. In the past the diagnosis was usually made on surgical material or at autopsy (Kay *et al.* 1958) and pseudomembranous colitis was looked on as an acute, fulminating and frequently fatal condition. However, there are now many reports of it running a reversible and milder course (Wise *et al.* 1974). In particular this applies to cases provoked by antibiotics.

There were 2 male patients and 4 female patients in the series (age range 23–75 years). Diarrhoea was the presenting symptom in all. In 3 cases it was sudden, severe and clearly related to a preceding course of clindamycin or lincomycin. In the other three cases the diarrhoea was more chronic and whilst they too had received a recent course of antibiotics (ampicillin, terramycin, fucidin) the relationship was less precise. The two oldest patients died, both from severe metabolic imbalance. One had required a total proctocolectomy and ileostomy; the other was managed conservatively. Four cases recovered, only one of whom received surgery.

Sigmoidoscopy was carried out in 5 of the cases and 4 showed discrete yellow/white mucosal plaques. It is important to biopsy the edge of such lesions as they are the diagnostic regions.

In all 6 cases a definite diagnosis could be made from the rectal biopsies which showed the classical features (Fig 1). There were volcanic-like eruptions of mucus and pus from distended and partially necrotic glands, this eruption coalescing to form a pseudomembrane on the mucosal surface. The immediately adjacent mucosa was normal. These features are not seen in acute Crohn's disease or acute ulcerative colitis and hence rectal biopsy provides a rapid means of diagnosis of pseudomembranous colitis.

Recently reports have appeared connecting lincomycin and clindamycin with pseudomembranous colitis (Ecker *et al.* 1970, Scott *et al.* 1973) and 3 of our cases had received these drugs.

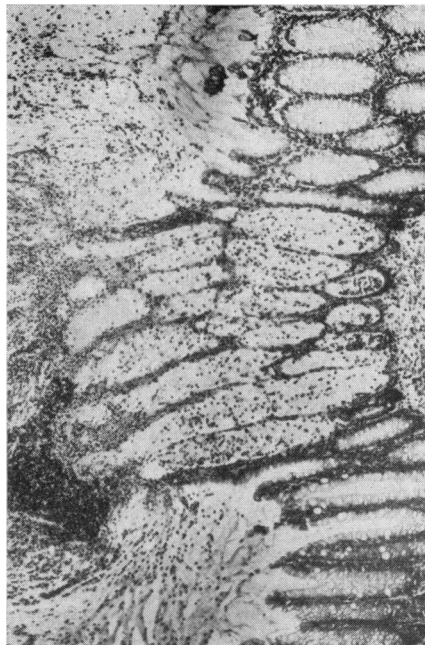


Fig 1 Pseudomembranous colitis. Normal mucosa above and below classical 'eruptive' glandular lesion

There are only a few isolated reports (Jackson & Anders 1972) where pseudomembranous colitis has not been preceded by surgery, chronic medical disease, infection or antibiotics (Goulston & McGovern 1965). That is, it rarely, if ever, arises *de novo*. However, not all cases of colitis following these four states are of the pseudomembranous form. To what category of colitis do such cases belong and can one recognize an earlier stage of pseudomembranous colitis prior to the development of the characteristic lesion?

We have recently studied the rectal biopsies of 2 cases of non-pseudomembranous clindamycin-induced colitis. Both showed a nonspecific proctitis with no distinguishing features. However, by encouraging clinicians to perform biopsy early in those patients in whom diarrhoea is associated with antibiotic therapy, shock, surgery and chronic cardiac and renal states, it may be possible to identify early stages in the development of the pseudomembranous lesion.

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