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Tedesco F J, Barton R W & Alpers D H. Clindamycin-associated colitis: a prospective study. *Ann. Intern. Med.* 81:429-33, 1974.
[Dept. Internal Medicine, Washington Univ. Sch. Medicine, St. Louis, MO]

A prospective study of patients receiving clindamycin showed a 21 percent incidence of diarrhea and a ten percent incidence of pseudomembranous colitis. If the diagnosis is made early after the onset of diarrhea and the antibiotic is stopped, the pseudomembranous colitis seems to be self-limited. [The *SCI*® indicates that this paper has been cited in over 325 publications since 1974.]

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"In 1973, while I was a gastroenterology fellow, Burton Shatz and I were performing colonoscopy on a patient with diarrhea and a colonic polyp noted on barium enema. During this examination, we noted multiple raised plaque-like lesions studding the colonic mucosa. We proceeded to remove the colonic polyp as well as taking multiple biopsies of these unusual lesions. The biopsies of these lesions were interpreted as 'pseudomembranous colitis.' Over the next several months, I saw several other patients with these peculiar lesions, and I reviewed their clinical course and hospital charts to see if a common feature was present. During this same period, Cohen, McNeill, and Wells published an interesting report¹ of several patients who had classic pseudomembranes on proctoscopic examination, yet their biopsies showed nonspecific inflammation. The common feature in their patients was that they were receiving an antibiotic, clindamycin.

"The patients I had examined also had been receiving clindamycin. My early experience with clindamycin-associated pseudomembranous colitis led me to believe that the association between clindamycin and pseudomembranous colitis was valid, but the natural history and mortality of antibiotic-associated pseudomembranous colitis was different than the reported 50 to 75 percent mortality figure usually associated with pseudomembranous colitis. I, in collaboration with Barton and Alpers, devised a prospective study of all in-hospital patients receiving clindamycin to determine the actual incidence of diarrhea, colitis, or both, and to uncover the natural history of clindamycin-associated colitis.

"The report of this study had immediate reactions including a flurry of other reports of this condition as well as an early reluctance by some people in industry to accept the scope of the problem. An article in the *Wall Street Journal*,² which quoted from the *Medical Letter*³ and utilized information from our article, intimated that these reports led stock analysts to modify their opinion of Upjohn Company stocks. In fact, the Upjohn Company stocks dropped nearly 27 percent in three days. Shortly thereafter, an invitation was extended to me by Senator Gaylord Nelson to testify before his subcommittee concerning clindamycin-associated pseudomembranous colitis.

"This paper appears to be highly cited because it focused on a rarely recognized problem and led investigators in fields other than gastroenterology to aggressively investigate this problem. This paper led to further publications on the etiology,^{4,6} stool toxin assays,⁴ and treatment.⁷ Our knowledge concerning antibiotic-associated colitis has rapidly expanded since this publication in 1974."

1. Cohen L E, McNeill C J & Wells R F. Clindamycin-associated colitis. *J. Amer. Med. Assn.* 223:1379-80, 1973. (Cited 155 times.)
2. Ella C J. Heard on the street. *Wall Street J.* 12 September 1974, p. 35.
3. Colitis associated with clindamycin. *Med. Letter Drugs Ther.* 16:73-4, 1974.
4. Bartlett J G, Chang T W, Gurwith M, Gorbach S L & Onderdonk A B. Antibiotic-associated pseudomembranous colitis due to toxin-producing clostridia. *N. Engl. J. Med.* 298:531-4, 1978. (Cited 270 times.)
5. Larson H E, Price A B, Honour P & Borriello S P. Clostridium difficile and the aetiology of pseudomembranous colitis. *Lancet* 1:1063-6, 1978. (Cited 195 times.)
6. Kappas A, Shinagawa N, Arabi Y, Thompson H, Burdon D W, Dtmock F, George R H, Alexander-Williams J & Keighley M R B. Diagnosis of pseudomembranous colitis. *Brit. Med. J.* 1:675-8, 1978. (Cited 80 times.)
7. Tedesco F, Markham R, Gurwith M, Christie D & Bartlett J G. Oral vancomycin for antibiotic-associated pseudomembranous colitis. *Lancet* 2:226-8, 1978. (Cited 115 times.)