Diseases of the
COLON & RECTUM

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Symposium

Colonic Diverticular Disease*

Moderator: DONALD M. GALLAGHER, M.D.
San Francisco, California

Panelists: NEIL S. PAINTER, M.D., JOHN HODGSON, M.D.,
MURRAY PHEILS, F.R.A.C.S., ALEJANDRO F. CASTRO, M.D.,

Miller's Bran in Management

NEIL S. PAINTER, M.S.†

DR. GALLAGHER

The first discussion topic is the role of bran in the treatment of diverticular disease. This will be given by Neil S. Painter of London, England, an authority on this subject. Mr. Painter.

MR. PAINTER

Mr. Chairman, ladies and gentlemen, this talk deals with diverticular disease and the use of miller's bran, and not diverticulitis as stated in the program.

A barium-enema study of a patient with diverticulosis shows dramatic differences from the normal colon which are so obvious that, today, any student has no difficulty in recognizing the disease. Only 70 years ago, this "new" disease was unknown. Colonic diverticula had been described as curiosities, but clinicians were unaware of them and did not see diverticulitis. Why has this disease appeared on the clinical scene?

The pathogenesis of colonic diverticula involves segmentation of the colon (Fig. 1). Cineradiography coupled with intraluminal pressure recording has shown that the colon can segment sufficiently to occlude its own lumen so that it functions as a series of "little bladders." In these bladders very high localized pressures that drive the mucosa through the "trabeculated" colonic muscle may be produced.4, 5, 12

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For reprints of the symposium please write to authors of individual articles.

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The recognition of the segmentation mechanism of pressure production explains only how these herniations of the colonic mucosa occur, but does not shed light on the etiology of the condition. Fortunately, clues as to the causation of diverticular disease can be gleaned from the history of the disease and from study of its geographic prevalence.

Colonic diverticula were considered only an interesting curiosity until Graser in 1899 pointed out that infection of these mucosal sacs might lead to perforation and peritonitis. In the next ten years he was proved right. By 1917, Telling and Gruner were able to catalog all the complications of the disease that we know only too well today and, by 1925, Spriggs and Marxer could describe the radiologic appearances of the various stages of the disease. There is little doubt that diverticulitis suddenly became what Sir John Bland-Sutton called a “newly discovered bane of the elders.”

The disease is now the commonest affliction of the colon in the nations of the western world.

When the prevalence of diverticulosis around the world is considered, its incidence varies from nil in the rural communities of Africa and Asia to about a third of those more than 60 years old in Europe, Australia, and North America. This is not a racial phenomenon as, although the disease is rare or absent in rural Africans, it is just as common in black Americans as in their white compatriots, and affects the West Indians living in Britain. The disease is appearing in the cities of Africa and Asia among that part of the population who are adopting the eating habits of the industrialized world. Similarly, the disease has appeared only recently in Japan, but is extremely common in Americans of Japanese stock who were reared in Hawaii or in the continental United States.

This “new” disease cannot be due to a

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**PRESSURE TRACE**

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whose outflow is obstructed in both directions. Hence, colonic and vesical diverticula owe their origins to a similar mechanism. (Reprinted with permission from Painter NS.)