

have been reported,² but complete obstruction is unusual. We feel that the reason for its occurrence in the case reported here is the unusual length of aorta involved, which prevented any displacement of the oesophagus. Unless the existence of this phenomenon is appreciated it may lead to a mistaken diagnosis of achalasia or carcinoma of the oesophagus.—We are, etc.,

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¹ Martin, P., and Sellwood, R. A., in *Clinical Surgery*, ed. B. W. Taylor and J. F. Wilkinson, vol. 14. London, Butterworths, 1967.

² Mucklow, E. H., and Smith, O. E., *Journal of the Faculty of Radiologists*, 1954, 6, 88.

Faecal Fibre Fortunes

SIR,—The only firm evidence for the use of bran in treatment is that concerning diverticular disease of the colon.^{1,2} In 70% of patients 12-13 g of bran a day will control the symptoms of pain or alteration of bowel habit. I know of no way of predicting which patients will respond well. It does not appear to be related to age, sex, or anatomical changes on barium enema. I have become aware in the past 12 months that after seven years' experience with this treatment symptoms can return. A few people continue to deteriorate even, apparently, when taking the bran conscientiously.

The epidemiological evidence is very much against diverticular disease being a bran deficiency.³ In Britain two generations passed between the latest date for white bread becoming generally available and the recognition of diverticular disease as common. It has become epidemic only in the past 20-30 years.

It also appears to me that the alteration in colon function is qualitative as well as quantitative and is poorly explained merely as a work hypertrophy. In the extreme case of the defunction colon there is loss of muscle bulk in the wall, and I have seen no description of diverticulosis developing in such a colon. This manoeuvre is used to treat the complications of diverticular disease!

A better explanation of the facts given by the hypothesis is that diverticular disease is caused by some chemical in the faeces active in interfering with the autonomic plexuses of the colon and deactivated by bran. The bile acids probably fulfil these conditions.

(1) The bile acids are very powerful stimulators of colonic contraction. The effect is produced through an intact mucous membrane. Conversely, the most annoying complication of the use of bile-binding agents of low bulk such as polidexone (Sechalex) is constipation.

(2) With the exception of the ion-exchange resins (cholestyramine), the effective bile-binding agents are long-chain carbohydrates (polidexine, pectin, guar gum). Bran is a variable mixture of complex carbohydrates with some lignin. The amount of carbohydrate remaining in the bran depends upon how it has been handled and possibly explains the variable results obtained in using bran to fix bile acids.

(3) The over-adequate diet did not become common in this country until after the first world war. The break in the rise of diverticular disease produced by the second world war is as satisfactorily explained by generalized dietary restriction as by a minor increase in vegetable fibre.

(4) The principal criticism of this hypothesis appears to be a satisfactory explanation of why this disease affects principally the left colon. Concentration of free bile acid in the left colon could occur if the bile-binding carbohydrates present in a modern diet were degraded by the bacteria in the bowel.

Nevertheless, I do not wish in any way to detract from the use of bran in the conservative management of diverticular disease. It represents a major advance which is above all safe. But the remainder of the extrapolation about bran deficiency, and in particular the vast amount of publicity, represents what Professor Richard Scorer has called "environmental jitters."¹⁻⁴—I am, etc.,

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¹ Plumley, P. F., and Francis, B., *Journal of the American Dietetic Association*, 1973, 63, 527.

² Painter, N. S., Almeida, A. Z., and Colebourne, K. W., *British Medical Journal*, 1972, 2, 137.

³ Robertson, J., *Nature*, 1972, 238, 290.

⁴ Scorer, R., *New Scientist*, 1975, 66, 702.

SIR,—Your leading article entitled "Faecal Fibre Fortunes" (14 June, p. 580) did not present a balanced view concerning the value of fibre in the diet. It concentrated almost exclusively on one of the more difficult subjects—namely, whether dietary fibre is protective against cancer of the large bowel. This review did not refer to the recent communication from eminent bacteriologists, who have spoken about "a possible protective action of dietary fibre against mucosal damage by potential carcinogens."¹ Sir Francis Avery Jones (7 June, p. 566) has alluded to the possible reduction of carcinogens by fibre.

Those who wish to study the difficult question of dietary fibre are recommended to read "The Importance of Fibre in Human Nutrition"² or study the implications of the Committee on Medical Aspects of Food Policy (Nutrition) of the Ministry of Health and Social Security, which has already stated that "populations who eat a diet rich in fibre (particularly fibre from cereals and legumes) have a lower serum cholesterol concentration and a lower ischaemic heart disease mortality than those who eat a western type diet relatively low in this kind of fibre."³—We are, etc.,

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¹ Walters, R. L., et al., *British Medical Journal*, 1975, 2, 536.

² Agricultural Research Council and Medical Research Council, *Food and Nutrition Research*, p. 141. London, H.M.S.O., 1974.

³ *Diet and Coronary Heart Disease*, p. 18. Report on Health and Social Subjects, No. 7. Report of the Advisory Panel of the Committee on Medical Aspects of Food Policy (Nutrition) in Diet in Relation to Cardiovascular and Cerebrovascular Disease. London, H.M.S.O., 1974.

Prazosin in Treatment of Hypertension

SIR,—We were interested to read the paper by Dr. M. J. Bendall and others (28 June, p. 727) on side effects due to treatment of hypertension with Prazosin. We have completed a clinical trial of Prazosin in the treatment of hypertension in 50 patients and have seen two patients who developed syncope as a severe side effect immediately

after taking 2 mg of the drug. Both were nursing sisters, aged 35 and 40 years respectively, and they stated that the syncope was preceded by a bout of severe palpitations. The pulse rate was 120/min and the blood pressure 160/120 mm Hg in one patient and 160/min and 150/110 mm Hg in the other. Thus, unlike the syncope after Prazosin, which is recognized to be due to hypotension,¹ in both our patients it was probably due to a severe bout of sinus tachycardia or paroxysmal auricular tachycardia.

We agree with Dr. M. J. Bendall and his colleagues that the initial dosage of 2 mg thrice daily is too high and would suggest that it should be 1 mg twice daily. Like Okun *et al.*² we have found that there was no limitation of therapeutic effects when the dosage frequency was reduced from thrice to twice daily. This dosage schedule may be more convenient for outpatients and therefore more acceptable.

We think that the side effects of Prazosin could be reduced by encouraging the routine use of a thiazide diuretic with a daily dosage of Prazosin of 4 mg or more unless there is a contraindication to the use of thiazide—for example, a gouty diathesis. It would be prudent to combine Prazosin with a beta-adrenergic blocking agent and a thiazide diuretic if the daily dosage of Prazosin exceeds 10 mg or should side effects due to Prazosin occur at a lower dosage. Prazosin may be a useful alternative to hydralazine, a vasodilator, which is often combined with beta-adrenergic blocking agents in the treatment of hypertension. Details of our results will be published in a separate report.³—We are, etc.,

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¹ *Adverse Reaction Series*, No. 12. London, Committee on Safety of Medicines, 1975.

² Okun, R., *Excerpta Medica International Congress Series*, 1974, No. 331, 82.

³ Seedat, Y. K., North-Coomes, D., and Rampono, J. G., *South African Medical Journal*. In press.

Sheep as Grass-cutters

SIR,—Dr. A. M. W. Porter's interesting Personal View (12 July, p. 96) made admirable suggestions for educating boys inexpensively at private schools run on monastic lines. However, one of the suggestions should be reconsidered lest the bad results of adopting it might weaken the rest. The bad one is the suggestion that on playing fields sheep may be used to shorten the grass "far more effectively and productively" than men using mowers.

Alas! Sheep will eat only the best grasses, leaving the coarser ones to predominate. Sheep will also soon make the ground deficient in lime and they will not trample bracken heavily enough to keep it under control if it once gets in. The resulting sward will be useless for games. The sheep could be accompanied by cattle, of course, to prevent all of these misfortunes, but special arrangements and local rules would then have to be devised to keep the sports clean as well as manly. I have been told that Chinese geese are excellent grass-cutters, but I have no first-hand experience of their work.—I am, etc.,

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