

Rheumatology 2002;41:950–951

A vegan diet changes the intestinal flora

SIR, When discussing the potential mechanisms by which a vegan diet free of gluten alleviates the signs and symptoms of rheumatoid arthritis (RA), Hafström *et al.* [1] fail to mention the effect of the diet on the intestinal flora. In fact, we have reported two studies in this journal on diet-induced changes in the faecal flora in RA. When the flora of the patients in the study by Kjeldsen-Kragh *et al.* [2] (also cited by Hafström *et al.*) was analysed, significant differences were observed not only between baseline and later values and between periods of vegan and lactovegan diets, but also according to the clinical improvement of the patients. A statistically highly significant difference in the flora between patients with a high improvement index and those with a low index was found at 1 and 13 months of the study [3]. Similar results, with a significant difference between the high and low responders, was also observed when the faecal flora of RA patients receiving 'living food', a form of uncooked vegan diet, was examined [4].

The potential role of the intestinal flora in the pathogenesis of RA is emphasized by the finding that patients with early RA have a significantly different faecal flora than the controls [5]. One should also realize that the human intestine normally harbours Gram-positive bacteria whose cell walls are capable of causing chronic experimental arthritis [6–8], and that some of the experimental models of chronic arthritis only work in conventional conditions and not in germ-free animals [9, 10]. On these bases, when discussing the mechanisms of diet-induced improvement in RA, we find the potential role of intestinal bacteria hard to ignore.

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Accepted 28 February 2002

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