Intestinal Permeability in IgA Nephropathy

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Dear Sir,

We were interested to read the paper by Sato et al. [1] in which they reported the results of dietary challenge with cow's milk on circulating IgA immune complexes in patients with IgA nephropathy. The authors proposed that dietary antigens may participate in the development of IgA nephropathy in some patients.

We have recently investigated 20 patients with histo-logically proven IgA nephropathy for abnormality of intestinal mucosal permeability. The method used was the cellobiose/mannitol differential absorption test; this test correlates with histological disease activity in coeliac disease and other intestinal disorders [2], and is unaffected by declining renal function since the results are expressed as the ratio of urinary excretion of the two sugars. The 20 patients studied had a mean age of 34.5 years (range 17–70), 16 were male, the mean plasma creatinine was 105 $\mu\text{mol/l}$ (range 66–208). The mean serum IgA was 3.78 g/l (range 1.94–6.9), with 6 patients having elevated IgA levels (normal range 0.5–4.0 g/l). Four patients had detectable circulating immune complexes, but these were not subtyped.

Figure 1 illustrates the results. Three patients had abnormal elevation of the cellobiose/mannitol excretion ratio, suggesting abnormal intestinal permeability. These patients were further investigated by jejunal biopsy. None of the 3 showed any histological evidence of coeliac disease or other abnormality. However, on biochemical analysis of the biopsy, 2 patients (1 of Chinese origin) showed unequivocal lactase deficiency, in the third the results were equivocal owing to the small size of the biopsy.

This study, in common with Sato et al. [1] identifies a subgroup of patients with IgA nephropathy in whom an abnormality of the intestinal permeability may result in excessive antigen challenge. The concept that in some

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Fig. 1. Cellobiose/mannitol excretion ratio in patients with mesangial IgA nephropathy. The dotted line marks the upper limit of the normal range for our laboratory.

patients intestinal lactase deficiency may be a factor in the antigen ingress of IgA nephropathy merits further investigation.

References

Sato, M.; Takayami, K.; Wakasa, N.; Koshikawa, S.: Estimation of circulating immune complexes following oral challenge with cow's milk in patients with IgA nephropathy. *Nephron* 47:43–48 (1987).