Nephrotic Syndrome Associated with Celiac Disease

A Report of Five Cases

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Dear Sir,

The presence of circulating antigliadin antibodies is frequent in IgA nephropathy [1–5]. However, any sort of relationship between celiac disease and nephrotic syndrome has not been described in the medical literature until now. It is this association that we bring forth.

Five patients (3 boys/2 girls) out of a total of 251 patients with nephrotic syndrome have been followed in our Department. All 5 presented both nephrotic syndrome and celiac disease and were diagnosed during the last 5 years. The mean age of onset was 4.5 years. Celiac disease was first diagnosed in 4 patients previous to the nephrotic syndrome. Celiac markers were looked for in the fifth patient after the first episode of nephrotic syndrome. One of the 5 patients presented both nephrotic syndrome and diabetes mellitus. The diagnosis of nephrotic syndrome was made according to clinical and analytical findings, whereas the diagnosis of celiac disease involved clinical and laboratory findings (chronic diarrhea, positive antibodies) and pathological confirmation after bowel biopsy. Kidney biopsies were done in 2 patients: 1 showed minimal change lesions while the other presented IgM infiltrates. Re-

garding clinical evolution, 1 of the patients resulted as corticosteroid sensitive and 3 of them were corticoid dependent, requiring cyclophosphamide and one of them levamisole. The fifth patient was lost during follow-up.

After a review of the literature, no reference has been found of the association between celiac disease and nephrotic syndrome. Mignot et al. [6] looked for a relationship between HLA DQA1 and HLA DQB1 in three groups of patients with, respectively, nephrotic syndrome, diabetes mellitus and celiac disease. No genetic relationship was found.

On the other hand, the prevalence of celiac disease in the general population is approximately 3 per thousand, whereas nephrotic syndrome in the pediatric population is around 2–7 per 100,000. In our series, the incidence of celiac disease in patients diagnosed with nephrotic syndrome amounts to 2%, without any explanation of the cause.

With this note, we wish to underline the presence of celiac disease in nephrotic syndrome and recommend the inclusion of celiac disease screening in these children.

References

- 1 Van der Woude FJ, Hoedemaeker PJ, Van der Giessen M, de Graeff PA, de Manchy J, Van der Hem GK: Do food antigens play a role in the pathogenesis of some cases of human glomerulonephritis? *Clin Exp Immunol* 1983;51: 587–594.
- 2 Coppo R: The pathogenic potential of environmental antigen in IgA nephropathy. *Am J Kidney Dis* 1988;12:420–424.
- 3 Laurent J, Brenellec A, Heslan JM, Rostoker G, Brumeau C, Andre C, Intrator L, Lagnie G: An increase in circulating IgA antibodies to gliadin in IgA mesangial glomerulonephritis. *Am J Nephrol* 1987;7:178–183.
- 4 Fornasieri A, Sinico RA, Maldifassi P, Bernasconi P, Vegni M, D'Amico G: IgA antigliadins antibodies in IgA mesangial nephropathy (Berger's disease). *Br Med J* 1987;295:78–80.
- 5 Ots M, Uibo O, Meskila K, Uibo R, Salupere V: IgA antigliadin antibodies in patients with IgA nephropathy: The secondary phenomenon? *Am J Nephrol* 1999;19:453–458.
- 6 Mignot E, Kimura A, Abbal N, Thorsby E, Lin X, Voros A, et al: DQCAR microsatellite polymorphisms in three selected class II associated diseases. *Tissue Antigens* 1995;46:299–304.