Variations of Primary Glomerulonephritis Incidence in a Rural Area of 400,000 Inhabitants in the Last Decade

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Dear Sir,

We were most interested in the findings reported by Barbiano di Belgiojoso et al. [1]. These authors confirmed our previous study performed in a French rural area of 250,000 inhabitants [2] and a study performed at Necker Hospital [3]. We continued our epidemiological study and are able now to report our 10-year results (1976–1985) in a larger area of 400,000 inhabitants.

Statistical analysis was performed by the χ^2 test and comparison of histological types was made between two periods of 5 years each: period A (1976–1980) and period B (1981–1985). The numbers of renal biopsies performed during each period were similar (320 in period A, 343 in period B). Primary glomerulonephritis (GN) represented 64% (A) and 62% (B) of the total number of renal biopsies. Our results are shown in table I. We confirm the progressive reduction of the

Table I. Distribution of primary GN during the 1976–1985 period, divided into two periods of 5 years each

incidence of membranoproliferative GN (MPGN) and we report two other variations in the incidence of primary GN. First, a strong reduction in the poststreptococcal incidence of acute GN: 5.3% (A) vs. 0.4% (B) ($p < 0.001$). Second, a significant increase in the incidence of idiopathic diffuse crescentic GN: 2.5% (A) vs. 7% (B). The incidence of CGN in period B was identical to that of the Milan study [1].

The reason for the simultaneous decrease in MPGN and poststreptococcal acute GN could be due to a decrease in the incidence of streptococcal infections and/or the better efficiency of preventive treatment in western Europe, where the number of physicians has strongly increased in the last decade. The reason for the increase of CGN is unclear. It could be speculated that a modification of exogenous or environmental factors influencing both the rural and the urban population could account for these variations. In the last decade, a large number of people from rural areas have moved into towns or have started working there.

Period B 1981–1985

Period A 1976–1980

MC 26 12.6 21 9.8

FGS 32 15.6 31 14.5

AGN 24 11.6 16 7.4

Poststreptococcal AGN 11 5.3 1 0.4*

Non-poststreptococcal AGN 13 6.3 15 7 MGN 22 10.7 30 14 CGN 5 2.5 15 7*

IgA GN 71 34.6 90 42.2 MPGN 20 10 5 2* Focal PGN 3 1.5 5 2.5

Total 205 213

*p < 0.01 versus period A. MC = Minimal change; FGS = focal and segmental glomerular sclerosis and hyalinosis; AGN = diffuse glomerulonephritis; MGN = membranous GN; IgA GN = IgA nephritides; PGN = focal proliferative GN.

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