

Membranous nephropathy remains the commonest primary cause of adult nephrotic syndrome in a British population

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Background

Recent data from North America indicates that focal segmental glomerulosclerosis (FSGS) has succeeded membranous glomerulopathy as the commonest cause of primary nephrotic syndrome^{1,2}.

We aimed to establish the frequency of glomerulopathies in adult patients undergoing native renal biopsy for primary nephrotic syndrome in 3 centres serving almost half the Scottish population - Glasgow Royal Infirmary (GRI), Western Infirmary Glasgow (WIG) and Ninewells Hospital Dundee (NWD).

Methods

It is practise in each of the 3 centres to perform renal biopsy in all patients with nephrotic syndrome unless the clinical features are typical of diabetic nephropathy. Clinical data on each renal biopsy is recorded prospectively using the electronic patient record in each of the 3 centres, utilising previously agreed codes for diagnosis and indication. Information on the pathological diagnosis was obtained from reports.

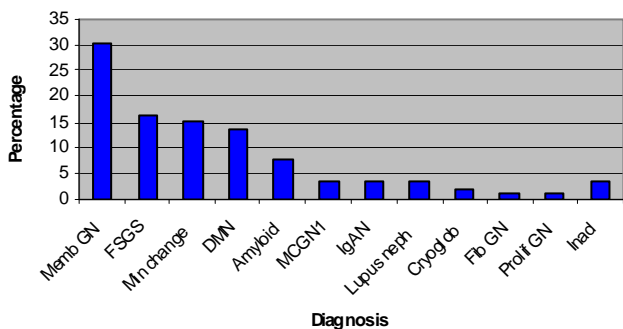
This study included all native adult renal biopsies performed for a 3 year period between 2003-2006 for nephrotic syndrome in the 3 centres.

Results

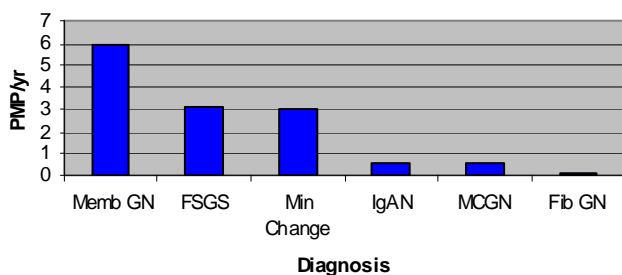
122 patients underwent renal biopsy for nephrotic syndrome accounting for 17.8% of all native renal biopsies and giving an annual incidence of 20.2 per million population per year (PMP/yr).

The aetiology was primary glomerulopathy in 84 cases of nephrotic syndrome (68.9%), of whom 70.2% were male and mean age was 58.4 years.

Aetiology of all biopsied nephrotic syndrome



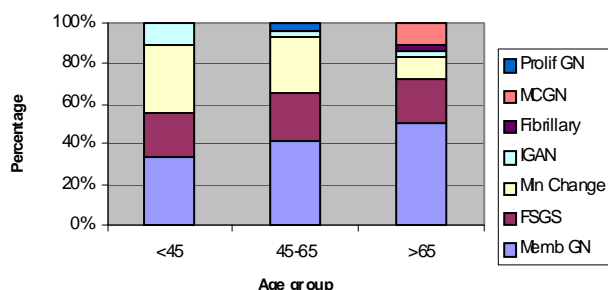
Primary glomerulopathies causing nephrotic syndrome per million population per year (PMP/yr)



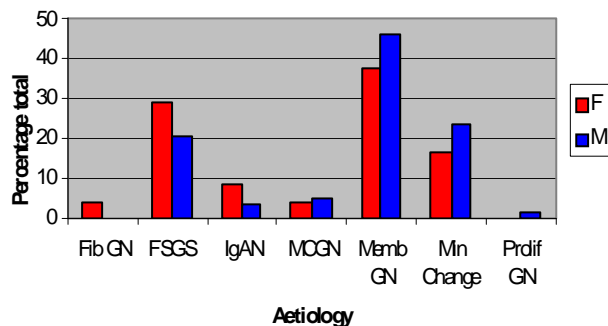
Primary glomerulopathies and biopsy for nephrotic syndrome were more common in those over the age of 65.

Age group	Total biopsies for nephrotic syndrome	Number of primary glomerulopathies
<45	26	19 (73%)
45-65	43	29 (67%)
>65	49	36 (74%)

Aetiology of primary nephrotic syndrome by age



Aetiology of primary nephrotic syndrome by sex



Conclusions

The aetiology of nephrotic syndrome in Scotland varies with age but not with sex. The proportion of primary glomerulopathies diagnosed by biopsy for nephrotic syndrome is relatively constant in different age groups. In contrast with North America, membranous nephropathy remains the commonest primary cause of nephrotic syndrome in all age groups.

References

1. Dragovic D, Rosenstock JL, Wahl SJ et al. Increasing incidence of focal segmental glomerulosclerosis and an examination of demographic patterns. Clin Nephrol 2005;63(1):1-7.
2. Haas M, Meehan SM, Karrison TG, Spargo BH. Changing etiologies of unexplained adult nephrotic syndrome: a comparison of renal biopsy findings from 1976-1979 and 1995-1997. Am J Kidney Dis 1997;30(5): 621-31.