Centre variation in indication and diagnosis of native renal biopsies

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Background

Data regarding the indication for native renal biopsy is sparse. The aim of this study was to compare frequency, indications and diagnosis of native renal biopsy in 3 Scottish centres. Ninewells hospital Dundee (NWD), Western Infirmary Glasgow (WIG) and Glasgow Royal Infirmary (GRI) cover almost half of the Scottish population.

Methods

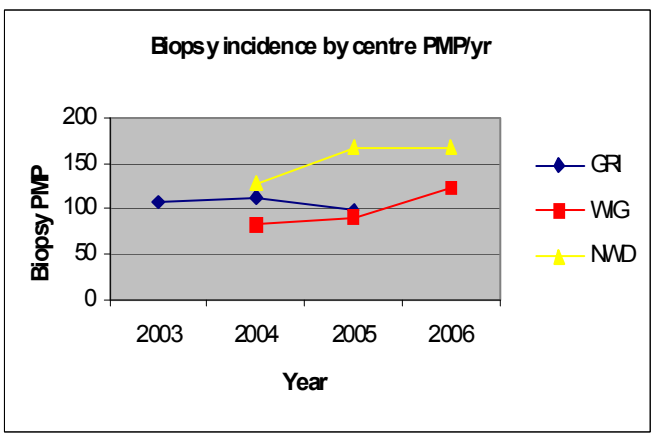
Data on each renal biopsy performed in each centre are recorded prospectively using the electronic patient record. Pre-defined codes are used for classification of indication. All native renal biopsies performed in each centre during a 3 year period from 2003-2006 were included.

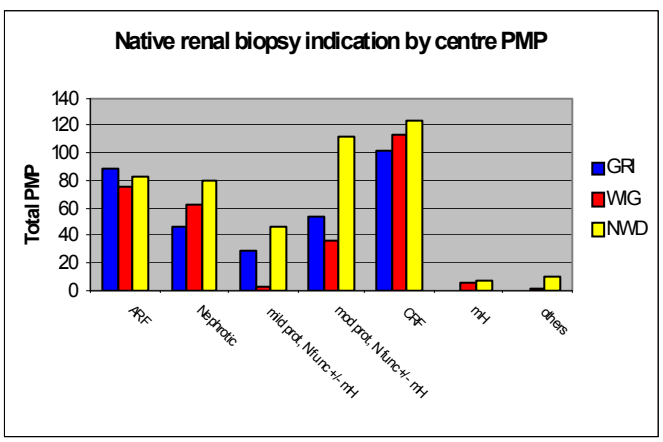
Indications were classified as acute renal failure, nephrotic syndrome, mild proteinuria with normal renal function ± haematuria, moderate proteinuria with normal renal function ± haematuria, chronic renal failure not nephrotic syndrome, isolated microscopic haematuria and others.

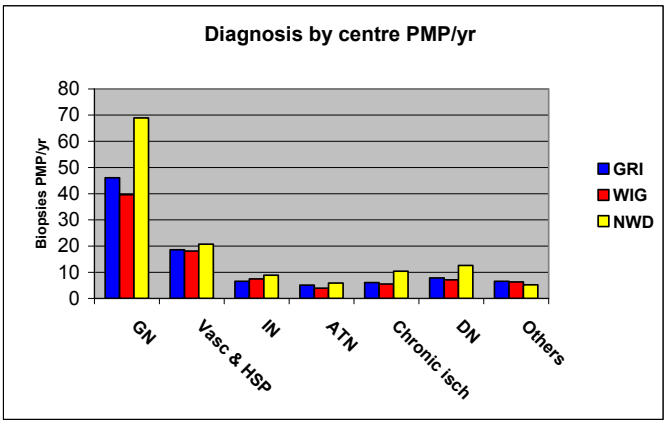
Diagnoses were catergorised as 'glomerulonephritis', 'vasculitis and SLE' 'interstitial nephritis', 'acute tubular necrosis', 'chronic ischaemic', 'diabetic nephropathy' and 'others'.

Results

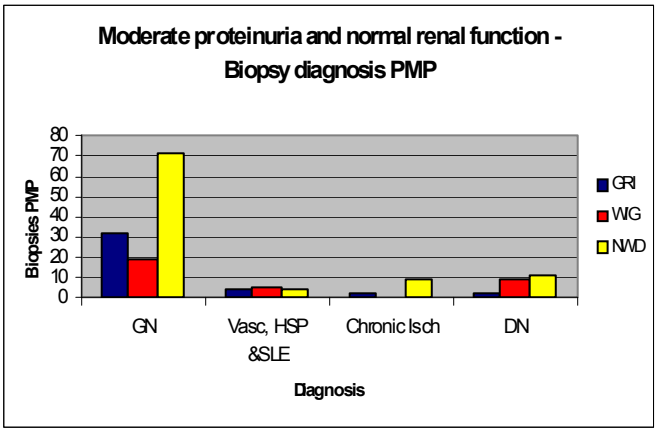
In WIG, GRI and NHD 250, 227 and 207 biopsies were performed respectively, 684 in total, giving an average annual incidence per million population (pmp) per year of 98.1, 105.8 and 153.3 respectively. 37.7% were female with a mean age of 56.4 (15.0-98.5).

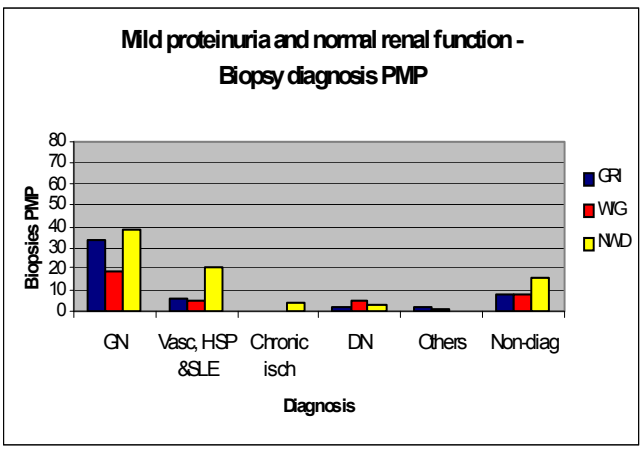






When looking further at those diagnostic indications where practise varied between centres, diagnostic outcomes are largely as would be expected.





Conclusions

Within Scotland we found substantial variation in the incidence of native renal biopsy between centres. This is mainly explained by variation in incidence of biopsy for mild and moderate proteinuria ± microscopic haematuria with preserved renal function. This variation in biopsy practice probably explains the variation we found in incidence of glomerulonephritis and diabetic nephropathy.