TOTAL INFLAMMATION SCORE IN LATE RENAL ALLOGRAFT BIOPSIES FOR CAUSE IS AN INDEPENDENT PREDICTOR OF GRAFT FAILURE

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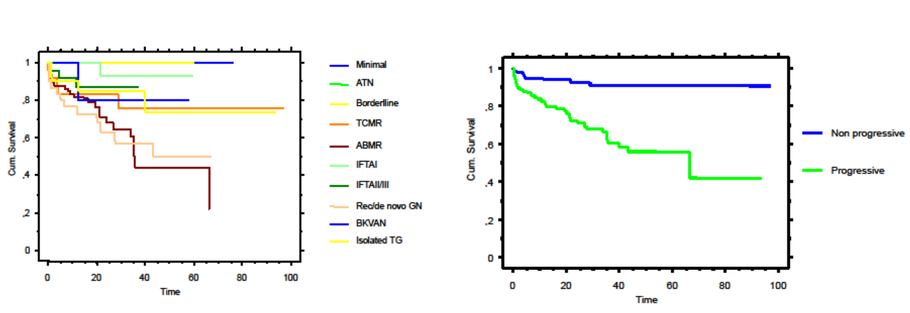
Introduction:

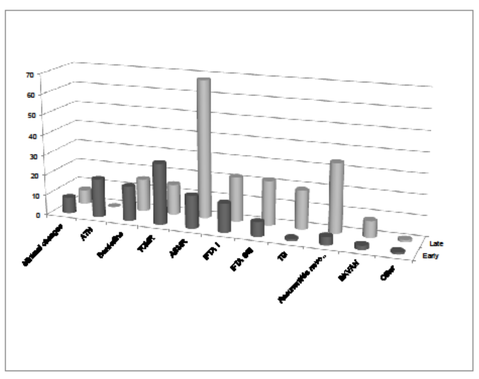
In renal transplants with a late biopsy for cause the most important predictor of outcome is the diagnosis of a progressive disease. It is not clear whether the degree of acute and chronic lesions in the different renal compartments add any prognostic value to graft failure.

Patients and Methods:

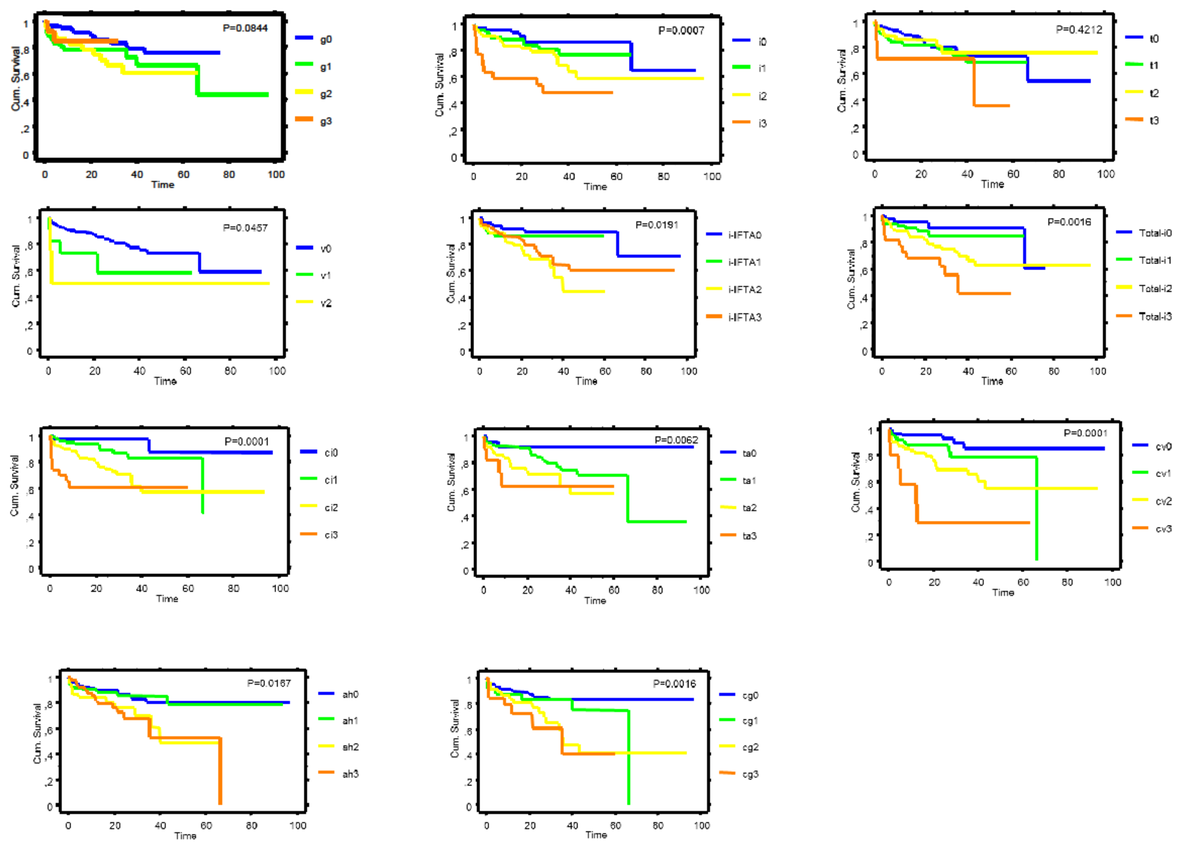
Observational, retrospective study of 232 late renal allograft biopsies performed in 180 patients between 2007 and 2014. In patients with more than one biopsy during the study period the last one was considered to evaluate its association with graft outcome. Scores for acute and chronic lesions in the different renal compartments and the main histological diagnosis were obtained according to the last up date of Banff criteria. Total inflammation and inflammation in areas of interstitial fibrosis were also scored. At the time of biopsy the presence of HLA antibodies by Luminex technology was evaluated.



Graft survival in late diagnosis based biopsies and grouping based on progressive disease vs nonprogressive



Prevalence of histological diagnosis by biopsy time.



Graft survival according to acute histological lesions (classical and nonclassical: i-IFTA, i-Total score) and chronic histological lesions

Results:

A specific progressive disease was diagnosed in 131 out of 180 cases (72.8%): antibody-mediated rejection (n=54), recurrent or de novo glomerulonephritis (n=29), isolated transplant glomerulopathy (N=17), T cell mediated rejection (n=11), borderline changes (n=12) and BK virus associated nephropathy (n=7). The remaining 27.2% of cases were classified as minimal changes (n=10), mild (n=16) and moderate/severe interstitial fibrosis/tubular atrophy (n=23). During follow up 42 grafts failed at 22±7 months after biopsy. Graft failure was independently associated with the presence of a specific disease (hazard rate: 6.08 and 95% confidence interval: 1.4-25.7; p=0.014) and total inflammation score (hazard rate: 2.7 and 95% confidence interval: 1.2-6.2; p=0.019). In the multivariate model graft failure was not associated with interstitial fibrosis, interstitial inflammation in non-scarred areas and interstitial inflammation in scarred-areas.

Conclusions:

Total inflammation score in late biopsies for cause in renal allografts with dysfunction is an independent predictor of graft survival.

Referens:

Naesens M et al Transplantation. 2014 Aug 27;98(4)
Naesens M et al J Am Soc Nephrol. 2013 Nov;24(11):1913-23.
Sellarés J et al Am J Transplant. 2011 Mar;11(3):489-99.

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