The influence of Polyomavirus infected glomerular cells on the development of glomerulopathy and the graft survival

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Introduction

The importance of SV-40 positive parietal cells in glomeruli is unknown. The aim of this study is two-fold; first to evaluate the relationship between histological findings such as the development of glomerulopathy (GP) with glomerular SV-40 expression, second to understand the impact of glomerular polyomavirus (GPV) involvement to the graft survival.

Material and Method

Total 71 PVN cases included into the study. All biopsies re-evaluated and follow-up biopsies examined for the development of interstitial fibrosis (IF) and GP. Interstitial neutrophil, plasma cells, CD3, CD4, CD8 positive lymphocytes, and macrophages graded. Clinical data retrieved from patients’ records.

Results

The mean interval between PVN and transplant was 17±22 months. Glomerular SV40 was positive in 20 cases (28.2%). During follow-up 39 cases had proteinuria, but only 19 (26.7%) developed GP and 43 (60.6%) developed IF. The mean viral load in urine and plasma at diagnosis was higher in GVP(+) than that GVP(-) (p