

NECROTIZING GLOMERULONEPHRITIS AS A MANIFESTATION OF EVEROLIMUS NEPHROTOXICITY IN RENAL ALLOGRAFT RECIPIENT – CASE REPORT

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Two years after kidney transplantation 39-years old male recipient was subjected to the modification of basic immunosuppressive scheme due to biopsy proven chronic cyclosporine nephrotoxicity. The patient received everolimus (2 mg twice a day), and continued the treatment with MMF and prednisone. At the time of treatment modification, he had no proteinuria, nor erythrocyturia, his serum creatinine concentration was stable, at about 2.3 mg%.

Two months after the introduction of everolimus the patient presented with moderate proteinuria (up to 3 g/d), erythrocyturia, and mild leukocyturia with negative urine culture. Blood tests revealed an increase in serum creatinine to 3,5 mg%, and a decrease in C3 concentration. Kidney transplant biopsy showed changes consistent with necrotizing glomerulonephritis with the formation of segmental cellular crescents, accompanied by the deposition of IgG, IgM, and C3 along the capillary walls. On electron microscopy there were electron dense deposits within the GBM, GBM reduplication, and segmental glomerulosclerosis. On the basis of biopsy findings there was another change in basic immunosuppression with the withdrawal of everolimus, and the introduction of tacrolimus. Within 2 weeks after the cessation of everolimus the proteinuria decreased below 1 g/d, there was no erythrocyturia, and creatinine concentration decreased to the level of 2,5 mg%. In the following months the graft function was stable, there was a normalization of C3 concentrations in the serum, and only mild proteinuria on urinalysis. Five months after the withdrawal of everolimus the protocol graft biopsy showed double contouring of glomerular capillaries, some scanty deposits of IgG and C3 in some of glomerular segments, plus more advanced glomerulosclerosis in comparison to previous biopsies.

Conclusion: The sequence of clinical, as well as morphological changes speaks for the recognition of everolimus nephrotoxicity in a form of necrotizing glomerulonephritis with immune complexes deposition in renal allograft.