

MICROCIRCULATION OF URETER DURING NEOIMPLANTATION

I. Csizy¹, I. Furka², T. Cserni¹, T. Jozsa¹, C. Olah¹, K. Petho², N. Nemeth², I. Miko²
¹Pediatric Surgery ²Institute of Surgery, University of Debrecen, Hungary
lszabo52@axelero.hu

Various types of ureter neoimplantation methods can be used. The most common techniques are the Cohen and the Politano. The aim of the study was to compare the effect of these different methods on the ureter tissue microcirculation in animal model and to answer the question which technique has better outcome. Method: The authors investigated tissue microcirculation patterns of ureter segments under surgical conditions employing Laser Doppler flowmetry in dogs. Different surgical procedures were compared in the function of tissue microcirculation as measured in the affected ureter segments. Measurements both in the intra- and postoperative periods were performed to compare different methods of ureter neoimplantation (Cohen vs. Politano- Leadbetter) and tapering (excisional technique, i.e. tailoring vs. plication of the lower ureter). The status of the ureter microcirculation was compared before and after catheterisation. 9 cases of Politano-Leadbetter and 9 cases of Cohen procedure as well as ureter tailoring in 7 and plication in 6 cases were performed in mongrel dogs. The microcirculation patterns of the ureter were detected intraoperatively and postoperatively using Laser Doppler Flowmetry device. The influence of catheter insertion on ureter microcirculation was examined in each case. Results: Among the neoimplantation methods the Cohen procedure whereas among the tapering procedures the plication of the ureter were found to affect the least the microcirculation of the ureter tissue. The catheter insertion had significantly worsened the blood supply. Conclusion: Based on these results better outcome can be expected with the Cohen neoimplantation method and plication of ureter as compared with others.

