



Contribution of Double-J tube Drainage in Renal Transplantation



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Introduction

The protection of urinary anastomoses by ureteral catheterization is common practice in urology, but their use in principle in renal transplantation remains controversial. Despite the improvement of harvesting techniques and the respect of certain surgical principles during transplantation, an incompressible number of urological complications persist. The problem for the transplant surgeon is to try to reduce these complications. One of the measures to prevent these complications is the systematic insertion of a double J catheter suggested by some authors.

Materials and Methods

Between December 2006 and February 2018, 69 renal transplants were performed in our department. All patients received uretero-vesical anastomosis of the Lich-Gregoir type. A first group of 22 consecutive patients did not have a JJ catheter; a second group of 47 patients had a JJ catheter systematically removed after 4 weeks. A cytobacteriological examination of the urine was performed in all patients.

Discussion

Only a few prospective randomised studies comparing Lich-Gregoiruretero-bladder anastomoses with and without double J catheters were found in the literature. A urological complication was noted 6 times out of 407 uretero-vesical anastomoses protected by a double J catheter (1.5%), compared to 35 out of 389 anastomoses without a double J catheter (9%) [1]. These studies therefore show that uretero-vesical anastomoses intubated with a double J catheter present fewer urological complication. Nevertheless, as it is unnecessary in more than 90% of cases, we believe that selective insertion of a double J catheter should be

the most logical approach, taking into account the overall surgical complication rate of each center, the experience of the transplant surgeon and the operative findings [2-4].

Cost of the double J catheter

According to Kumar, the insertion of a double J catheter only increased the overall cost of renal transplantation by about 1%, which he considers negligible given the absence of urological complications (which can jeopardise the functional prognosis of the graft) that have been identified since he began routinely inserting a double J catheter [5,6].

Infectious complications and duration of drainage by the double J tube

At present, there is no consensus on the optimal duration of double J tube drainage, which varies from 3-7 days to 12 weeks depending on the team but tends to decrease in more recent series. Glazier states that early removal of the double J catheter, within 2 weeks of transplantation, significantly reduces the incidence of urinary tract infections [7,8].

Conclusion

A review of the literature has demonstrated the benefit of double J catheterization in renal transplantation, even though it is unnecessary in more than 90% of cases. We therefore believe that selective insertion of a double J catheter should be the most logical approach, taking into account the overall surgical complication rate of each center, the experience of the transplant surgeon and the operative findings. As for the duration, 2 to 4 weeks seems sufficient because ureteral necrosis beyond the first month is exceptional.

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