

rate, with a median clearance of creatinine of 73 mL/min/1.73 m². Except for the increase in fractal dimension of the fibrosis surface area, no significant differences were found between the improvement of renal function and metabolic and imaging parameters. An increase in fractal dimension expressed by greater complexity may correlate with a lower increase of the clearance of creatinine.

Conclusions: The imaging parameters did not predict the disease severity, except the increase in fractal dimension of fibrosis surface area. Efficacy of bilateral ureteric stenting in improving renal function is limited in most cases. Metabolic parameters and predisposing factors and extent of the disease seemed to be important risk factors for predicting retroperitoneal fibrosis severity.

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Lymphocele after kidney transplantation

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Introduction and Objectives: The term lymphocele denotes a limited collection of serous liquid in the wound after kidney transplantation. Lymph flows into the operation wound from the damaged lymphatic vessels in the vicinity of the iliac veins of the recipient or from the lymphatic vessels in the hilum of the kidney damaged during its removal from a cadaveric or living donor. The family of lymphoceles includes also persisting lymph flow through a drain placed in the wound after kidney transplantation. Symptomatology of the lymphocele depends on its size and location. Small asymptomatic lymphoceles predominate that are found accidentally during a post-surgery follow-up of the patient. Large lymphoceles squeeze and compress the ureter of the transplanted kidney hereby impeding the drainage, which eventually impairs the function of the transplanted kidney. The pressure of the lymphocele on the venous drainage in the small pelvis of the recipient brings about an oedema of the ipsilateral lower limb or of the genitalia. Sovereign diagnostic methods include USG and CT. Resolution between an urinoma and lymphocele is based on biochemical examination of the content of the lymphocele. The treatment of lymphocele consists in percutaneous or laparoscopic drainage, or in open marsupialization of the lymphocele into the peritoneal cavity. Very rarely can one identify the vessel from which lymph is flowing out and to handle it surgically. Small asymptomatic lymphoceles do not require active treatment.

Material and Methods: Between 2007 and 2009, 131 kidneys have been transplanted to 72 men and 59 women. 125 kidneys have been removed from cadaveric, 6 kidneys from living donors. In 17 patients (12.9%) we have found symptomatic lymphoceles. The lymphocele was observed more often in women (10/59 = 16.9%) than in men (7/72 = 9.7%) and was diagnosed on the average 12.4 days (from 7 to 20 days) after surgery. In 14 patients, the dominant symptom of the lymphocele was impaired function of the transplanted kidney with ureterohydronephrosis. In 3 patients the lymphocele caused oedema of the lower limb.

Results: In 2 patients, lymphocele resorbed spontaneously. 9 lymphoceles were drained by a percutaneously inserted puncture drain (in one case the ureter of the transplanted kidney was hereby injured). The six largest lymphocelas were marsupialized into the peritoneal cavity. Three operations were performed laparoscopically, three operations by open surgery.

Conclusions: Active treatment of the lymphocele consists of its drainage. In the treatment of largest lymphoceles, the open surgical approach proved to be good by lower midline laparotomy. In this way one can avoid the transplanted kidney while identifying the extent of the lymphocela and performing targeted marsupialization, possibly also inserting a lappet of the

omentum into the cavity of the lymphocele. All lymphoceles have been treated successfully, not even one transplanted kidney has been lost.

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The ureter in patients after kidney transplantation

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Introduction and Objectives: Urological complications present a significant cause of morbidity and mortality after kidney transplantation. They often require surgical revision and may lead to a loss of the transplanted kidney. The most frequent place of occurrence of urological complications is the ureter of the transplanted kidney. Complications arise in the case of affection of both the proximal and distal sections of the ureter. During the removal of the kidneys from a dead or living donor, the blood supply of the ureter may be damaged. After kidney transplantation this leads to necrosis of the ureter. Due to a technical mistake, complications may occur at the site of reimplantation of the ureter into the bladder of the recipient or at the place of uretero-ureteral anastomosis, and also a kink of the ureter may occur. Bleeding from the stub of the ureter is another reason of complications. These may be early (until 1 month after kidney transplantation) or late (months or even years after transplantation).

Material and Methods: The authors analyze the reasons of complications related to the ureter of the transplanted kidney. In the group of 131 patients, 135 reconstructions of the lower urinary tract have been performed. In 110 patients the ureter was implanted transvesically using the antireflux technique of Politan and Leadbetter, 22 times the method of direct reimplantation after Boeminghaus in the case of a small and shrunk bladder was used, and twice the reconstruction of the lower urinary tract was performed by side-to-side connection of the ureter of the transplanted kidney with the bladder of the recipient. In three patients the ureter was implanted into an ileal loop after ureteroileostomy. In 120 patients the reconstruction of the lower urinary tract was secured using drainage by an ureteral stent.

Results: The most frequent complication was bleeding from the ureteral stump during the first days after surgery (in 5 women and 4 men). In all patients, this complication was resolved by transureteral fulguration of the bleeding site. In one female patient, a urinary fistula developed with necrosis of the terminal section of the ureter, in one patient the cause of a urinary fistula was unhealed cystostomy. Stenoses of the distal ureter were observed in 4 patients (3 women and 1 man). In 5 patients (2 women and 3 men) we diagnosed a kinked ureter as the cause of insufficient drainage of the transplanted kidney. All complications resulting from pathology of the ureter of the transplanted kidney were successfully resolved surgically. In 2 patients we replaced the ureter of the transplanted kidney by a segment of ileum.

Conclusions: Temporary drainage of the ureter by an ureteral stent proved to be the only explanation for the marked decrease of severe urological complications (urinary fistulas and obstruction, particularly in the early stage after kidney transplantation) in comparison with previous data recorded in our centre, when endoprotheses were not used.