İKTARAFLI BÖBBEK TASLARINA ES ZAMANLI PERKÜTAN NEFROLITHOTOMİ: İLK DENEYDİR"MERİZİM
BILATERAL SIMULTANEOUS PERCUTANEOUS NEPHROLITHOTOMY: OUR INITIAL EXPERIENCE

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ABSTRACT

Introduction. Percutaneous nephrolithotomy is a minimally invasive method of stone disease surgery, defined in 1978 and is being applied for a variety of indications since then. This surgery is a routine in our clinic for treatment of one kidney in a single session for adults and children since 1998. In May 2001, we have performed our first bilateral simultaneous percutaneous nephrolithotomy operation. In this manuscript, we have evaluated our surgical results in patients who underwent this operation, regarding surgical outcomes, success and complication rates and secondary methods of treatment for residual fragments. We have also investigated renal functional changes in early postoperative period by means of renal functional tests.

Material and Methods: We have evaluated success, complications, auxiliary and secondary procedure rates, catheterization and hospitalization times in six patients who underwent this operation. At the same time, we noted BUN and creatinine changes between preoperative period and 6th and 48th postoperative hours.

A fragment that is 4mm in largest diameter which rendered as "clinically insignificant". We have also summarized our experience in patients who underwent surgery for one kidney at a single session, with special emphasis on success and complications in a table. Since the data is not suitable, we did not perform any statistical tests for comparison.

Results: Four of the 12 renal units had staghorn and another four had multiple stones initially. Mean stone surface area was 542 mm² and 568 mm² in right and left kidneys, respectively. Nine kidneys were operated via single nephrostomy tract while two and three tracts were created for two and one kidney units, respectively. In four renal units, at least one nephroureteral tract needed to be created between 11th and 12th ribs.

Of the six patients operated, four rendered stone free or with clinically insignificant stone fragments in both kidneys. Of the patients with residual stone fragments, one was cleared by ESWL, followed by ureteroscopy. So, our initial success rate was 66.6% and success after secondary procedure was 83.3%. A residual stone fragment persisted in one patient.

Mean time of surgery was 225 minutes and mean hemoglobin decrease was 2.75 mg/dl. The second side was operated at a mean of 80 minutes. Mean body temperature decrease was 1.7°C during the operation.

One patient needed blood transfusion. Measurements at 6th postoperative hour revealed a mild increase in BUN and creatinine in three patients, but no clinical sign of renal insufficiency was ever realized in any patients. These changes returned to preoperative values at 48th hour.

Mean time of uridical catheterization was 1 day and mean time to nephrostomy removal was 3.6 days. Patients were hospitalized for a mean of 5.5 days.

Conclusion: Although we have experience in unilateral operations, bilateral simultaneous operation is a new and limited experience for us; larger series may be more suitable to derive strict knowledge on efficacy and safety. Our data reveals that bilateral simultaneous percutaneous nephrolithotomy may be a safe and efficient operation in patients with suitable indications and well experienced surgeons.

Key Words: Percutaneous nephrolithotomy, bilateral, simultaneous, stone disease

ÖZET

Ayni analizde ana sonuçta iki tarafı böbbek taşlarına perkütan nefrolithotomi yapılan hastalara karşı bir değerlendirmeye izin verilmiştir. Ayni zamanında hastalara ekstra-deron renal fonksiyon değerlendirme imkânları incelendi.

Bu analizde yapılanquito hastanın başlı, komplikasyon, ek tedavi, kateterizasyon ve hospitalizasyon streslerini değerlendirmiştir. Ayni zamanda, hastanın cerrahi süreci ile cerrahi sonrası 6 ve 48. saatler arasında BUN ve kreatininin değişiklikleri değerlendirildi.

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