

FP15

Ultra-mini PCNL vs. flexible ureteroscopy: a matched-pair analysis of costs of treatment (expendable materials) in patients with renal stones 10-20 mm

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Introduction: Latest publications show equal efficacies for a recently introduced new percutaneous technique ("ultra-mini PCNL", UMP) and flexible ureteroscopy (fURS) in the treatment of medium size urinary stones. Today, we face challenges concerning cost efficiency and reduction of hospitalization times. Our study compares clinical parameters but also costs of treatment (expendables) of both techniques.

Materials and Methods: 30 patients treated by UMP at two tertiary university centres (Freiburg and London) were matched with 30 fURS patients from previously recorded data bases. Data analysis included operation times, hospitalization times, stone free rates (SFR), complications (> Clavien II), ancillary measures (pre-op JJ stenting or nephrostomies, secondary procedures) and costs for expendable materials and instruments (endoscopes, as calculated per procedure).

Results: No significant differences were found in operating times (UMP vs. fURS: 121/ 102 min.), hospitalisation times (2.3/2.0 days), SFR (84/87%) and complications (7/7%). Costs for expendable materials and endoscopes were 656 Euro (UMP) and 1160 Euro (fURS) per procedure. FURS patients need 3 x more ancillary measures (0.4/1.4).

Conclusions: UMP and fURS are both safe and effective in the treatment of medium size urinary stones. Costs for expendable materials and endoscopes are significantly lower in UMP. In addition, fURS required more ancillary measures (in the Freiburg group of patients preoperative JJ stenting in all).