Use of Only Ureteric Catheter 24 to 48 Hours Postoperatively Reduces Nephrostomy Tube and JJ Stent Related Morbidity in Selected Cases of Percutaneous Nephrolithotomy

Introduction and Objective: PCNL is well-accepted method of management of renal stone. In PCNL post operatively usually Nephrostomy tube and JJ stent are used. But Nephrostomy tube and JJ stent has some morbidity. Use of ureteric catheter for 24-48 hours postoperatively without Nephrostomy tube and without JJ in selected cases of PCNL reduces the morbidity. This study will evaluate the results of PCNL with only Ureteric catheter for 24 – 48 hours post operatively in the management of Renal stone in selected cases.

Materials and Methods: From July 2008 to December 2011 a total 226 cases of renal stone were managed by PCNL dividing into two groups Group A -PCNL with nephrostomy tube and JJ stent, Group B- Nephrostomy tubeless and JJ stent less PCNL with only ureteric catheter for 24 - 48 hour post operatively. All cases were operated in Urology department of Bangladesh Medical College Hospital, Popular Medical College Hospital and Japan Bangladesh friendship hospital, Dhaka. In all cases initially placed a ureteric catheter and at the end of the procedure compression at renal angle about 10 min and kept the ureteric catheter insitu in Group -B, in Group A Procedure ended with Nephrostomy tube and JJ stent. Ureteric catheter was removed 24 hour-48 hour after operation. JJ stent was removed 3 weeks after operation. Exclusion criteria for the tubeless and JJ stentless approach were more than two percutaneous access, significant perforation of the collecting system, large residual stone burden, significant postoperative bleeding, ureteral obstruction and renal anomaly. The incidence of complication, length of hospitalization, analgesics requirement and interval to return to normal activities were evaluated. Results: All 226 percutaneous procedures were performed without significant complication, none of the patients demonstrated urinoma in postoperative renal Ultrasound scan. In Group- B length of hospital stay was < 3days, the average analgesia requirement was single dose of Inj. Pethedin as per body weight, patient return to normal activity earlier then Group -A.

Conclusions: Use of ureteric catheter for 24- 48 hours postoperatively without nephrostomy tube and without JJ stent in selected cases of PCNL is a safe and effective procedure. Hospital stay and analgesia requirements are less and returns to normal activities are faster.