



VP04

Staghorn kidney calculi: mini-PCNL tubeless using a flexible nephroscope

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Introduction: The use of flexible nephroscopes and Holmium laser with the possibility of flexible ureterorenoscopy combined approach is changing the strategy endourological approach to staghorn calculi.

In this video we show a case of PCNL using a minimally invasive access to completely resolve a high burden Stone.

Materials: The patient was 54 year old and had a large history of recurring renal colic and hematuria. A CT study diagnosed a Staghorn calculi localized at the renal pelvis, middle and upper calyx and a 5 cm cyst in the lower/middle pole. The patient in supine modified Valdivia position underwent ureteral catheterism, radioscope-guided puncture of the middle calyx, 18 Ch progressive dilation after introducing contrast into the cyst to exclude damage due to the dilation. Next, laser fragmentation is performed. The fragments are expelled through the Amplatz passively and extracted with a Nitinol basket. At the end the ureteroscopy check that there are no remaining fragments and the Amplatz sheath is removed without placing a nephrostomy.

Results: The patient had an uncomplicated procedure with complete stone clearance at the end of the procedure. The post-operative recovery was uneventful and the patient was discharged 24 hours after. At a 4 month follow-up the patient was symptom free and no calculi were found.

Conclusions: The flexible nephroscopes facilitate a minimally invasive treatment of renal calculi in selected cases of lithiasic large masses.