

## **Percutaneous Indirect Endoscopic Approach to Kidney Echinococcosis Disease**

**Introduction and Objective:** Direct puncture of hydatid cyst has been reported with injection of scolicalidal agent. We present a video of our experience with a percutaneous endoscopic indirect approach to renal hydatid cysts, in order to avoid the risk of hydatid dissemination.

**Materials and Methods:** Between January 2007 and June 2009, 4 patients (2 men and 2 women) presenting renal hydatid cyst had a percutaneous endoscopic approach. The mean age was 36 years (13-68). The mean cyst diameter was 15 cm. After informed consent, all the patients had received 800-mg daily of albendazole-chemotherapy 3-months preoperatively.

The patients are placed in the lateral-modified-position. A 24-Fr percutaneous tract is performed through a calyx opposed to the cyst, upper calyx for lower pole cyst and vice-versa. Nephroscopy locate the cyst bulge in the caliceal lumen, which is punctured through the nephroscope operating channel using an 18-gauge-needle. A 20 % saline solution is used as a scolicalidal agent. After tract balloon dilation, the nephroscope is introduced into the cyst, and the hydatid material is aspirated. The cystic cavity is filled with contrast media and a drain is inserted through another direct percutaneous access. A nephrostomy tube is inserted in the renal pelvis. Postoperatively, the cystic cavity was treated by instillation of povidone-iodine, after nephrostography documented sealing of the communication between calyx and cystic cavity.

**Results:** Indirect endoscopic approach and treatment of renal hydatid cysts was possible with a mean operative time of 120 min. The patients had an uneventful discharge and had continued albendazole-chemotherapy during 3-months. Nephrostography had documented the sealing of the communication between the calyx and the cystic cavity between 4-15 days. After a mean follow-up of 33 months (25 to 41) with ultrasound and CT-scan, the patients are free of symptoms with no evidence of residual or recurrent disease, with a retracted calcified residual cystic cavity.

**Conclusions:** We think that via this approach, with the protection of the pelvicalyceal system, Amplatz sheath and saline irrigation, there is less risk of dissemination of hydatid material in the retro-peritoneum than with the direct percutaneous access, but only large comparative series will tell.

**\*To view this video, please [click here](#)\***