PERCUTANEOUS SCLEROSANT INSTILLATION VERSUS LAPAROSCOPIC CYST ABLATION FOR GIANT, SYMPTOMATIC RENAL CYSTS

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INTRODUCTION

It is well known that the most common benign tumors of the kidney in the adult population are simple renal cysts. Usually discovered accidentally because clinically silent, sometimes giant renal cysts can be symptomatic, commonly associated with flank pain, aggravation of previous arterial HT, macroscopical hematuria, infection, and obstruction of the collecting system. We want to share our experience started 5 years ago, regarding the best management of giant, symptomatic renal cysts initially by percutaneous ultrasound guided sclerosing therapy or by an alternative therapeutic procedure, like laparoscopic surgery for selected cases.

AIM OF STUDY: was to continue the evaluation of the adequate management of giant, simple renal cysts by percutaneous ultrasound guided sclerosing therapy with 96% ethanol. Significant, persistent lumbar pain, associating reduced QoL, and repeated episodes of uncontrolled hypertension were the most frequent indications for the intervention. In the cases when cysts reoccured after the second sclerotherapy, we referred the patients for laparoscopic cyst ablation.

MATERIAL AND METHODS

Between March 2009 and December 2014, ultrasound guided renal cyst puncture was performed in 68 patients (76 cysts), followed by 96% ethanol intracystic instillation (except in 11 cases, with macroscopical aspect suggesting intracystic infection/hemorrhage). All cysts presented the ultrasound criteria of simple renal cysts and a variable diameter between 6-12.8 cm, and Bosniak 1 or 2 in CT scan. In 14 cases there were giant, highly symptomatic, peripheral cysts in patients diagnosed with Adult Polycystic Kidney Disease. The technique consisted of ultrasound-guided puncture with an 18-G needle under local anesthesia with lidocaine 1%, partial aspiration of the content (over 75% of total volume), injection of 96% alcohol solution (up to 25% of the original cyst volume) into the cyst cavity under ultrasound guidance, with partially aspiration of the alcohol solution after 10 to 15 minutes. In 8 patients, 2 with recurrence of the cyst after the second sclerotherapy, and 6 with peripelvic cysts or complicated cysts(hemorrhage or infection) laparoscopic cyst ablation in Urology department was performed.

RESULTS:

The median follow-up period after procedure was 38 months (range 5 to 67 months). Cystic lesions were significantly reduced in diameter after sclerotherapy in all 68 patients: the ratio between post and pre-procedural maximum cyst diameter was between 0,20 and 0,93.

- In 8 cases, ultrasound examination could not detect anymore the location of the previous cyst, 6-48 months after the sclerotherapy (100% rate of success), with persistent effect until now. The functional renal parameters (urea and creatinine, eGFR) where not influenced by our procedure, and no other serious local or systemic complication (i.e. infections, hemorrhages, etc) occured. Local complications, like mild local pain related to ethanol instillation was reported in six cases. Caliceal deformation and/or pelvis compression improved in 2-3 days after instillation of ethanol and episodes of uncontrolled hypertension decreased/dissapeared in symptomatic patients(32/39 HT patients).
- In the 8 patients with laparoscopic cyst ablation, the evolution was excellent, with few coplications and duration of hospitalisation of 1-5 days.

CONCLUSION:

Ultrasound-guided ethanol instillation for giant, symptomatic simple renal cysts is a simple, safe, efficient, highly cost-effective, minimally invasive outpatient procedure and we continue to recommend it as a good therapeutic option, that can be successfully done by a nephrologist. The cost of laparoscopy and the duration of hospitalization is significantly higher in laparoscopic kidney cyst decortications, that is why we recommend it only in selected cases.

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