

SUCCESSFUL PERCUTANEOUS SCLEROTHERAPY FOR SYMPTOMATIC RENAL CYSTS

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INTRODUCTION

The most common benign masses of the kidney in an adult- renal cysts, are usually clinically silent and do not require specific therapy. Symptomatic renal cysts are associated with flank pain, hypertension(HT)/aggravation of previous HT, hematuria, infection, and obstruction of the collecting system.

AIM OF STUDY: We proposed to continue the evaluation, started in 2009 in our Nephrology Department, of the safety and efficacy of percutaneous ultrasound guided sclerosing therapy with 96% ethanol of giant, simple renal cysts. Significant, persistent lumbar pain, associating reduced QoL, and repeated episodes of uncontrolled hypertension were the most frequent indications for the intervention.

MATERIAL AND METHODS

- Between March 2009 and December 2012, ultrasound guided renal cyst puncture was performed in 48 patients (50 cysts), followed by 96% ethanol intracystic instillation (except in 6 cases, 12.5%, with macroscopical aspect suggesting intracystic infection/hemorrhage).
- In 10 cases there were giant, highly symptomatic, peripheral cysts in patients diagnosed with Adult Polycystic Kidney Disease.
- All cysts presented the ultrasound criteria of simple renal cysts and a variable diameter between 6-12.5 cm.
- We used 96% alcohol for its capacity to safely sclerose the secreting epithelial layer of the renal cyst wall, without damaging the renal parenchyma.
- 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.

RESULTS:

- The median follow-up period after procedure was 22 months (range 3 to 42 months).
- Cystic lesions were significantly reduced in diameter after sclerotherapy in all 48 patients: the ratio between post and pre-procedural maximum cyst diameter was between 0,21 and 0,87.
- In two cases, ultrasound examination could not detect anymore the location of the previous cyst, 3 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) ocurred.
- Local complications, like mild local pain related to ethanol instillation was reported in four 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(25/48).



CONCLUSION:

Ultrasound-guided ethanol sclerotherapy for giant, symptomatic simple renal cysts is a simple, safe, efficient, highly cost-effective, minimally invasive outpatient procedure.

Therefore, we recommend it as a therapeutic option only in selected cases, in order to increase the quality of life for these patients.

