

LONG-TERM PROGNOSIS OF PERCUTANEOUS SCLEROTHERAPY FOR GIANT, SYMPTOMATIC RENAL CYSTS

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INTRODUCTION

Renal cysts are the most common benign tumors of the kidney in the adult population. We already know that they are usually clinically silent and do not require specific therapy. But our experience showed that giant, symptomatic renal cysts are commonly associated with flank pain, occurrence of arterial hypertension (HT)/aggravation of previous HT, hematuria, infection, and obstruction of the collecting system. We used the experience started in our department 4 years ago, considering the safety and efficacy of percutaneous ultrasound guided sclerosing therapy of giant, but uncomplicated renal cysts. Persistent and intense lumbar pain, associated with reduced quality of life (QoL), as well as uncontrolled hypertension were the most frequent indications for the intervention.

AIM OF STUDY: We have continued 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 59 patients (62 cysts), followed by 96% ethanol intracystic instillation (except in 9 cases, 15.25%, with macroscopical aspect suggesting intracystic infection/hemorrhage).
- In 13 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 6-12.8 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 34 months (range 3 to 54 months).
- Cystic lesions were significantly reduced in diameter after sclerotherapy in all 59 patients: the ratio between post and pre-procedural maximum cyst diameter was between 0,21 and 0,92.
- In two cases, ultrasound examination could not detect anymore the location of the previous cyst, 1- 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) occured.
- 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(29/31).



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.

