

Chaker K., Ouanes Y., Sellami A., Ben Chehida M.A., Abid K., Ben Rhouma S., Nouira Y.

La Rabta, Dept. of Urology, Tunis, Tunisia

Introduction & Objectives: We aim to determine the malignancy rate, histologic grade, and initial stage of surgically treated complex renal cysts classified as Bosniak category III or IV.

Materials & Methods: We searched our database for cystic lesions classified as Bosniak III or IV category on CT or MRI from January 2005 to December 2015. Surgically resected lesions, per category, were correlated with information on pathologic reports to obtain malignancy rates. For malignant lesions, histologic grade and initial stage were evaluated.

Results: We included 50 patients in the final analysis. Of the surgically resected lesions, 35 (70%) were malignant and 15 (30%) were benign. Malignancy rates were 75% for Bosniak category III lesions and 90% for Bosniak category IV lesions. Most malignant cysts were early-stage (pT1) cysts with low histologic grades (80% of Bosniak III lesions and 95% of Bosniak IV lesions). Follow-up studies of the surgically resected lesions did not show local recurrence, metastasis, or lymph node enlargement.

Conclusions: Although high malignancy rates were observed for both Bosniak category III and IV lesions, our results suggest that such malignant cysts are usually early-stage tumors with a low histologic grade.