A 50-year-old male presented for the evaluation of microscopic hematuria. The evaluation led to the incidental diagnosis of a mass in the left kidney in abdominal U/S. The patient was further evaluated with contrast-enhanced CT of the abdomen. CT revealed a filling defect in the lower calyces of the left collecting system caused by a soft tissue mass which extended to the renal pelvis and upper part of the ureter. CT also revealed the presence of an ectopic normally functioning right kidney in the true pelvis. There were no enlarged lymph nodes or any other signs of metastatic disease. These findings raised a strong suspicion for TCC of the upper urinary tract, while other possible diagnosis included fibroepithelial polyp, and TBC of the renal pelvis. The patient was subjected to cystoscopy and placement of a ureteral catheter in the left upper urinary tract for obtaining urine samples for cytology. Cystoscopy was negative for bladder TCC however urine samples from both the bladder and upper tract turned positive for high grade TCC. In view of these findings the patient was scheduled for open left nephroureterectomy. Nephroureterectomy was uneventful, postoperative GFR was within normal limits and the patient was discharged home at POD 5. Pathology examination of the surgical specimen revealed the presence of smooth, pedunculated, polypoid mass measuring 9x3x2 cm. The mass was found to represent a fibroepithelial polyp. The case presented highlights the controversial issue of the questionable accuracy of urine cytology in the evaluation of collecting system masses.