Eighty year-old patient with past medical history of Alzheimer’s disease causing total dependence, permanent bladder catheter, right hip fracture, chronic renal failure (serum creatinine around 2 mg/dl), multiple lacunar ischemic strokes and ischemic heart disease with multiple by passes. In 2001, a superficial high-grade urothelial tumor was diagnosed by transurethral resection of the bladder. He received multiple sessions of immunotherapy with BCG, several reoperations, but radical surgery was rejected due to his poor overall situation. He developed a low capacity bladder due to the local effect of intravesical therapy. The left ureteral orifice was compressed by the bladder tumor and left nephrostomy was required. Right meatus and ureter were dilated in their entire length (Figure 1). This situation facilit-
Two days after bladder catheter replacement, the family informed about patient’s general status worsening associated with fever. In the emergency department, we observed an temperature of 38.5° accompanied by impaired renal function (Cr 4.26 mg/dl) and mild leukocytosis. The patient was bedridden, with malaise and pain on the right side. The collection bag of the left nephrostomy showed clear urine, while the urinary catheter bag showed scant dark urine. The first diagnostic test performed was a plain abdominal X ray film showing an abnormal location of the bladder catheter, with its extreme at the sacroiliac joint level (Figure 2).

Urologic ultrasound was subsequently performed showing marked grade III-IV right hydronephrosis and pyelocalyceal dilation with heterogeneous content and significant sediment in it (Figure 3).

Left renal unit had a mild dilation (grade I). Right ureter was dilated down to the lower third where the bladder catheter balloon was inflated occluding the ureteral lumen (Figure 4).

With these findings the diagnosis of pyonephrosis secondary to inadvertent ureteral catheterization in the context of a bladder catheterization was set. The catheter was repositioned under ultrasound guidance. Antibiotic and hydration treatment improved his general and renal status, the patient being released after only 5 days of hospitalization.