

## Ruptured Aortic Aneurysm Causing Right Hydronephrosis

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**Figure 1.** The coronal CT image shows a fusiform abdominal aortic aneurysm and right ureteral dilatation (white arrow)

### Original Image

A 61-year-old man was admitted with right flank pain for 3 weeks. Physical examination revealed mild costovertebral angle tenderness in the right flank. Laboratory tests, including serum creatinine level, inflammatory markers (erythrocyte sedimentation rate, C-reactive protein), and urine analysis, were normal. Ultrasonography revealed significant right hydronephrosis with an abdominal aortic aneurysm.



**Figure 2.** Retrograde pyelogram shows right ureteral kinking due to external compression and right ureterohydronephrosis

Computed tomography (CT) scan demonstrated a 12x7-cm ruptured fusiform abdominal aortic aneurysm (AAA) continuing from the aortic bifurcation to infrarenally and causing right hydronephrosis (Figure 1). After informed consent was obtained, the aortic aneurysm was treated endovascularly (endovascular aneurysm repair (EVAR)) with a "Y" stent. Double J catheter insertion for right hydronephrosis due to ureteral obstruction was performed (Figure 2, 3). A follow-up CT in the first month showed an aggravated aortic hematoma with completely resolved right hydronephrosis (Figure 4).

A subgroup of aortic aneurysms is inflammatory type AAAs, representing about 10%. Genitourinary symptoms are more common

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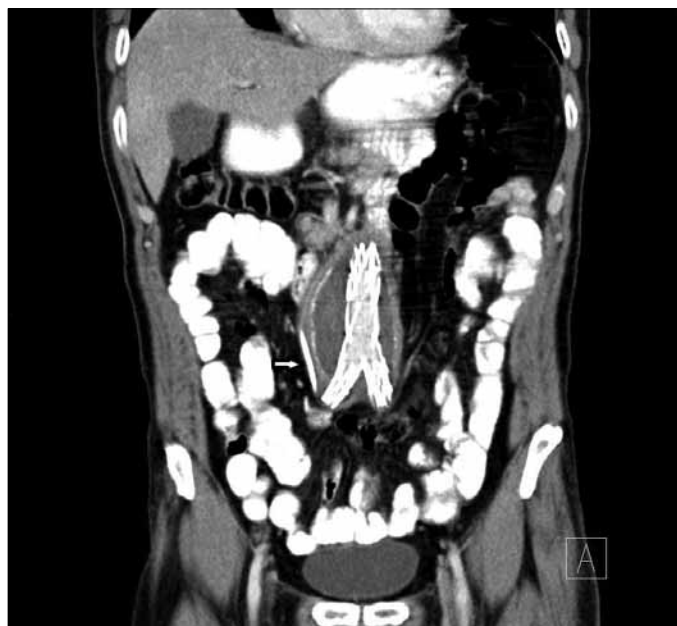
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**Figure 3.** Postoperative abdominal plain radiograph showing right DJ catheter with right ureterohydronephrosis

than the atherosclerotic type (1-2). Inflammatory aneurysms are characterized by inflammatory and fibrotic changes in the periaortic and retroperitoneal areas that can involve the ureter, causing ureteral obstruction in up to 20% of cases. Computed tomography findings, including a periaortic mass of inflammatory tissue surrounding a thickened aortic wall, are characteristic. If steroid therapy fails in re-



**Figure 4.** Postoperative coronal CT image: intra-aortic Y stent and right DJ catheter (white arrow)

lieving the ureteric obstruction, the best treatment option is open or laparoscopic ureterolysis, as for retroperitoneal fibrosis (3).

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