



Ruptured Giant Isolated Internal Iliac Artery Aneurysm Coexisting with Hydronephrosis

Hidronefroz ile Birlikteliği olan İzole Rüptüre Dev İliak Arter Anevrizması: Olgu Sunumu

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Dear Editor,

We report a 51- year-old male patient admitted to our emergency department because of sudden abdominal pain, hypotension, and dyspnea. On physical examination, abdominal tenderness was observed, primarily in the lower abdomen. Hemoglobin was 8.5 g/dl and hematocrit was 26%. Renal function was within normal limits. Ruptured giant left IIIAA (diameter 11 cm) with massive hematoma on the left side of retroperitoneal space and extensive left kidney (diameter 26x18x20 cm) hydronephrosis (Figure 1a,1b) was detected with contrast-enhanced computed tomography (CT). The patient been consulted to the urology department at the same

time and decided left nephrectomy for left kidney hydronephrosis. The patient was immediately taken to operation room due to hemodynamic instability. Proximal control was obtained by percutaneous endoaortic balloon occlusion catheter. The aneurismal sac was reached after midline laparotomy (figure 2). Ligation was performed to both the proximal and distal neck of aneurismal sac. After this procedure aneurismal sac was opened and drained. Concomitantly nephrectomy was performed. The postoperative follow up was uneventful. Symptoms of ischemic colon and claudicating were not observed and renal function tests were impaired. The patient was discharged on day 7 postoperatively. At 6 months postoperative, the patient remained well.

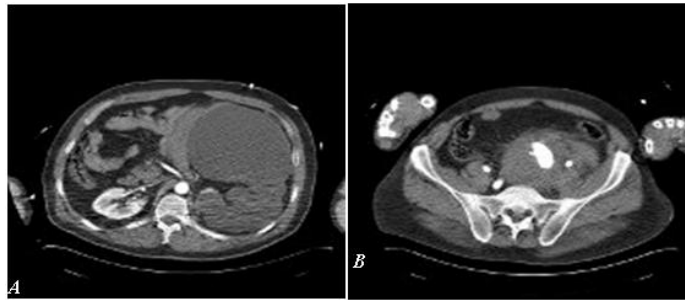


Figure 1a-1b. CT image showed; ruptured giant left IIIAA (diameter 11 cm) with massive hematoma left side of retroperitoneal space and left kidney large (diameter 26x18x20 cm) hydronephrosis



Figure 2. Intraoperative image of aneurismal sac

IIIAs are a rare and account for approximately 0.3%-0.5% of all intra-abdominal aneurysms¹. It is mostly encountered in elderly males. The most common etiologic factor is a degenerative process of the vascular wall associated with atherosclerosis. Other causes include infection, trauma, iatrogenic, vacuities, and collagen diseases. In 85% of cases, an IIIA is unilateral.

The natural history of IIIA is unclear because of the lack of large prospective series but probably is one of increasing size, associated with increasing risk of rupture, as is the case with aortoiliac aneurysms. McCready et al. suggested repair for all IIIAs >3cm. ² If rupture occurred, mortality was 53%.

The most of IIIAs are asymptomatic due to internal iliac artery lies deep in the pelvis. They are usually found when ruptured or incidentally during periodic examinations and investigations of other conditions. Clinical manifestation of IIIA occurs usually due to local compression of adjacent pelvic structures or erosion into surrounding organs (bladder, ureter, rectum, iliac vein or sciatic vein/nerve). Obstructive urinary symptoms are common and reported to occur in 54% of cases³. Ureteric colic, hydronephrosis, pyelonephritis and renal failure can be occurred secondary to ureteric obstruction. There were ruptured left IIIA coexisting left kidney hydronephrosis in our

patient. We think there was a left urethral compression due to left IIIA which causes left hydronephrosis.

A standard treatment for IIIA has not been established. Treatments include open surgical repair and endovascular repair using a variety of methods. The traditional approach to IIIAs repair has been open surgery. Endovascular repair has been successfully reported and is an emerging alternative to traditional open repair in selected patients, especially when asymptomatic⁴. Open surgery remains the gold standard if there are IIIA which have symptoms caused by aneurismal compression on adjacent organs⁵.

Endovascular balloon occlusion catheter for proximal control in aneurysm surgery is valuable treatment option as it is less risky, easy to perform and minimizes the structural damage of adjoining organs while maximizing the surgical exposure⁶. Endoaortic occlusion catheter can be life saving in hemodynamic instability with ruptured intraabdominal aneurysm of patients.

In conclusion, there are no guidelines for IIIA treatment. Endovascular repair has been successful reported for IIIA. However we prefer open surgical repair for treatment simultaneously in this pathologies if there are ruptured aneurysm coexisting aneurismal compression pathologies.

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