

Ureteral Injury Secondary To Lumbar Disc Operation In A Patient With Solitary Kidney

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✓ We present an iatrogenic ureteric injury diagnosed five months after a lumbar disc operation in a 42 year-old woman with solitary kidney. We excised the injured segment of the ureter and performed a uretero-ureterostomy.

Key Words: Injury, ureter, laminectomy.

✓ Lumbar disk operasyonundan 5 ay sonra iyatrojenik üreter yaralanması tanısı konan, soliter böbrekli 42 yaşındaki bir kadın olgu sunuldu. Yaralanan üreter segmenti eksize edildi ve üretero-üreterostomi yapıldı.

Anahtar kelimeler: Yaralanma, üreter, laminektomi.

Ureteral injuries secondary to lumbar disc surgery are very rare and difficult to diagnose^(1,2,6). Iatrogenic ureteric injuries most commonly occur during endoscopic and gynecological procedures. In the English literature, only nine ureteric injuries resulting from lumbar disc surgery have reported prior to this case⁽³⁻⁵⁾.

Case Report

A 42 year-old woman referred with severe colicky pain at the left side for the last four days and anuria for the last 36 hours. She had had a left L₅-S₁ hemilaminectomy and discectomy operation for her lumbar disc (HNP) five months ago. Her left kidney was palpable and tender on physical examination. Her bladder was empty. Blood urine nitrogen value was 72mg/dl and creatinine 11mg/dl. Abdominal ultrasonography revealed hydronephrosis and periureteral collection at the left side but couldn't identify the right kidney. Right ureteral orifice was absent at cystoscopic examination. Left retrograde pyelography couldn't demonstrate

the proximal 1/3rd of the left ureter but an 8 Fr ureteral catheter passed through the obstruction site at 15th centimeter and clear urine began to drop. Ureteral catheter was left in place til her renal functions recovered. Intravenous pyelography and abdominopelvic tomography confirmed agenesis of the right kidney; a simple cyst 7 cm in diameter at the upper pole of the left kidney and a urinoma, 6cm in diameter, lying with the left ureter. (Figure 1).

Periureteral urinoma was evacuated and the left ureter was demonstrated via a left flank incision. There was a strangulated and necrotic segment 1 cm in length and 7cm from the ureteropelvic junction. The necrotic segment was excised and end-to-end ureteral anastomosis was accomplished. Histopathologic examination of the excised ureteral segment revealed hemorrhagic necrosis. Postoperative course was uneventful. Intravenous pyelography obtained at the 6th postoperative month showed a normal functioning left kidney and ureter (Figure 2).

DISCUSSION

The prone position for lumbar disc surgery facilitates ureteric injury by compressing the ureter against the spinal column, especially at the level of the L₄-L₅ interspace. Associated injuries to the great vessels are also possible. Leanness, retroperitoneal adhesions and defects in the annulus fibrosus are predisposing factors. It is reported that Rongeur type instruments are more dangerous to ureter than spoon curettes⁽³⁾. It is interesting that, though she had a solitary kidney, our case was diagnosed five months after the disc operation and this shows the difficulty of diagnosis. We believe that to keep ureteric injuries in mind, especially in patients whose complaints persevere after a lumbar disc operation, will make the diagnosis easier.

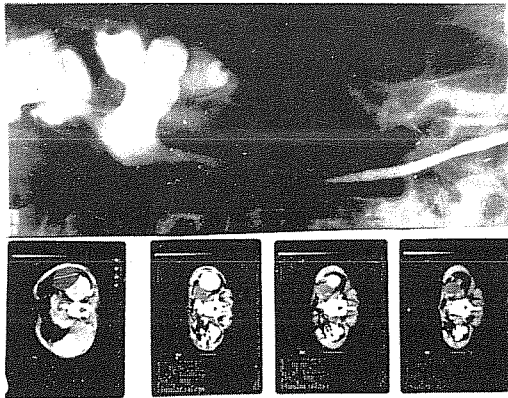


Figure :1. Computerised tomography serials demonstrating left periureteral urinoma and cortical cyst. Intravenous pyelography demonstrating the obstructed site of the ureter.

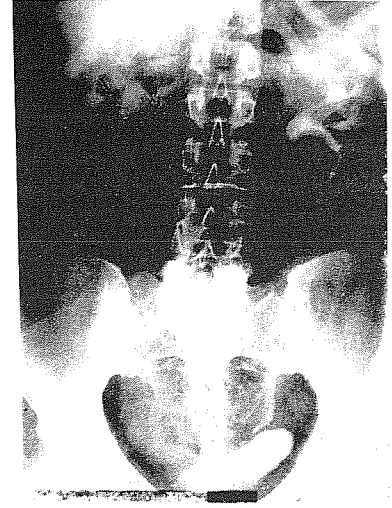


Figure:2 Intravenous pyelography 6 months after uretero-uretero stomy.

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