‘Medial Pyelolymphatic Disconnection with preservation of peripheral lymphatics’: A new concept in the surgical management of recurrent chyluria

Saurabh Sudhir Chipde, Anil Mandhani
Department of Urology and Renal Transplantation, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India.

SURGICAL TECHNIQUE

Chyluria is the passage of intestinal lymph containing chylomicrons, in urine. Pyelolymphatic disconnection (PLD) is the preferred treatment for recurrent chyluria. Conventionally it includes disconnection of all hilar and perirenal lymphatics. As most of the renal lymphatics ultimately drain into the hilar and then the para-aortic lymph nodes, we propose the disconnection of only medial lymphatics, termed as medial PLD, to minimize the time, morbidity, and unwarranted dissection.

Patient positioning and port placements are the same as in routine laparoscopic/retroperitoneoscopic renal surgery. We use three ports, one camera port (12 mm) at the umbilicus, one working port (10 mm) at the spinoumbilical line, and another 5 mm port at the subcostal area. In case of a difficult dissection, a 5 mm port at the anterior axillary line is used for retraction. In medial PLD, the upper part of the ureter is dissected first, to delineate the lymphatics between the ureter and mesocolon. Then the hilar lymphatic tissue is dissected, taking care of the smaller renal arteries that resemble the lymphatics. The tissue medial to the upper pole is subsequently dealt with. In this way disconnection of only the medial renal lymphatics from the upper pole of the kidney to the upper 3 to 4 cm of the ureter is done, with preservation of the peripheral lymphatics.

From July 2007 to September 2010, ten patients with median age of 38 (22 – 53) years, having recurrent chyluria despite dietary modifications, antifilarial treatment, and endoscopic sclerotherapy, had surgical correction. Five patients had conventional PLD (three by transperitoneal and two by retroperitoneal approach) and a subsequent five
patients underwent medial PLD with the transperitoneal approach.

The primary study outcome measurement was cure of chyluria without any recurrence and secondary measures were intra- and postoperative complications and operative time.

The intraoperative blood loss and hospital stay were the same in both groups. Medial PLD could be completed in lesser time than the conventional PLD; mean 95 ± 8.8 (80 – 120) minutes versus 115 ± 38.8 (100 – 150) minutes. One patient with conventional PLD had increased drain output for four days, which responded to conservative treatment. At a mean follow-up of 18.6 (12 to 36) months, no group showed recurrence of chyluria.

Laparoscopic medial PLD minimizes the operative time and unnecessary dissection all around the kidney and has a similar postoperative outcome as compared to the conventional PLD.

How to cite this article: Chipde SS, Mandhani A. ‘Medial Pyelolymphatic Disconnection with preservation of peripheral lymphatics’: A new concept in the surgical management of recurrent chyluria. Indian J Urol 2011;27:559-60.