



## Laparoscopic Pyeloplasty in children with Horseshoe Kidney

Paulo Renato Marcelo Moscardi <sup>1</sup>, Roberto Iglesias Lopes <sup>1</sup>, Marcos Figueiredo Mello <sup>1</sup>, Cristovao Machado Barbosa Neto <sup>1</sup>, Bruno Nicolino Cezarino <sup>1</sup>, Lorena Marçalo Oliveira <sup>1</sup>, Francisco Tibor Dénes <sup>1</sup>, Miguel Srougi <sup>1</sup>

<sup>1</sup> *Divisão de Urologia do Departamento de Cirurgia, Universidade de São Paulo, SP, Brasil*

### ABSTRACT

**Introduction:** Horseshoe kidney occurs in 1 per 400-800 live births and are more frequently observed in males (M:F 2:1). Ureteropelvic junction obstruction (UPJO) is commonly associated with horseshoe kidneys. The variable blood supply, presence of the isthmus and high insertion of the ureter contribute to this problem.

**Case report:** An asymptomatic 6 year-old boy presented with antenatal hydronephrosis. Ultrasonography and CT scan demonstrated left UPJO associated with a horseshoe kidney.

DMSA showed 33% of function on the left side. DTPA showed a flat curve and lack of washout. A left dismembered laparoscopic pyeloplasty was performed after identification of crossing vessels and abnormal implantation of the ureter. After one year, the child is asymptomatic. DTPA demonstrated a good washout curve.

**Results:** Our cohort consisted of six patients, five males and one female, with a mean age of 6 years (range 6m-17 years) and a mean follow-up of 3 years. Ureteropelvic junction obstruction was more common on the left side. Symptoms appeared only in 34% of the cases.

Mean operative time was 198 minutes (range 120-270 minutes). Crossing vessels were common (observed in 50% patients). High implantation of ureter was seen in 67% patients and intrinsic obstruction in 83%. Surgical difficulties were found in two cases. Hospital stay was 4.3 days (3 to 6 days), with only one patient having a mild complication (pyelonephritis). All cases had clinical and radiologic improvement.

**Conclusion:** Laparoscopic pyeloplasty is safe and feasible in children with UPJO in horseshoe kidneys, with good results and minimal morbidity.

### ARTICLE INFO

Available at: [http://www.int brazjurol.com.br/video-section/moscardi\\_375\\_375](http://www.int brazjurol.com.br/video-section/moscardi_375_375)

Int Braz J Urol. 2017; 43 (Video #7): 375-375

Submitted for publication:  
January 17, 2016

Accepted after revision:  
April 05, 2016

Published as Ahead of Print:  
October 20, 2016

### Correspondence address:

Marcos F. Mello, MD  
Departamento Urologia  
Faculdade de Medicina da Universidade de São Paulo  
Rua: Dr. Enéas de Carvalho Aguiar, 255  
São Paulo, 05403-010, Brasil  
Fax: + 55 11 2661-7990  
E-mail: marcosmello13@gmail.com