



Laparoscopic – assisted transpyelic rigid nephroscopy – simple alternative when flexible ureteroscopy is not available

Marcos Tobias-Machado ¹, Alexandre Kiyoshi Hidaka ¹, Igor Nunes-Silva ¹, Carlos Alberto Chagas ², Leandro Correa Leal ², Antonio Carlos Lima Pompeo ¹

¹ Departamento de Urologia, Faculdade de Medicina do ABC - FMABC - Santo André, São Paulo, Brasil; ² Departamento de Urologia do Meridional Hospital - Cariacica, Espírito Santo, Brasil

ABSTRACT

Introduction: In special situations such as malrotated or ectopic kidneys and UPJ stenosis treatment of renal lithiasis can be challenging. In these rare cases laparoscopy can be indicated.

Objective: Describe the Laparoscopic-assisted rigid nephroscopy performed via transpyelic approach and report the feasibility.

Patients and methods: We present two cases of caliceal lithiasis. The first is a patient that ESWL and previous percutaneous lithotripsy have failed, with pelvic kidney where laparoscopic dissection of renal pelvis was carried out followed by nephroscopy utilizing the 30 Fr rigid nephroscope to remove the calculus. Ideal angle between the major axis of renal pelvis and the rigid nephroscope to allow success with this technique was 60-90 grades. In the second case, the kidney had a dilated infundibulum.

Results: The operative time was 180 minutes for both procedures. No significant blood loss or perioperative complications occurred. The bladder catheter was removed in the postoperative day 1 and Penrose drain on day 2 when patients were discharged. The convalescence was completed after 3 weeks. Patients were stone free without symptoms in one year of follow-up.

Conclusions: Laparoscopic-assisted rigid nephroscopy performed via transpyelic approach can be done safely with proper patient selection and adherence to standard laparoscopic surgical principles. This approach is an alternative in cases where flexible endoscope is not available and when standard procedure is unlikely to produce a stone-free status.

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CONFLICT OF INTEREST

None declared.

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Correspondence address:

Alexandre Kiyoshi Hidaka, MD
Fac. de Medicina do ABC, Santo André, São Paulo
Av. Príncipe de Gales 821
Santo André, SP, 09060-650, Brasil
Fax: +11 4993-5400
E-mail: kiyoshihidaka01@gmail.com