



Laparoscopic radical prostatectomy for high risk localized and locally advanced disease

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ABSTRACT

Purpose: The indication for surgery in locally advanced prostate cancer is growing considering and long-term follow-up shows that 60-80% of patients can be free of clinical recurrence. The aim of this video is demonstrate the modifications in traditional laparoscopic surgery that permit to observe the oncological principles reproducing open surgery.

Materials and Methods: A 55 years-old male presented with an initial PSA = 25ng/dL, the digital rectal examination found a prostate with hardened nodules bilaterally (clinical stage T2c). Prostate biopsy showed an adenocarcinoma Gleason 7, the patient's disease was classified as a localized high-risk prostate cancer. Surgery was offered as initial therapeutic option and the critical technical points were: transperitoneal approach to evaluate if separation of rectum from prostate and seminal vesicles was possible, extended pelvic lymphadenectomy, opening of endopelvic fascia lateral to the prostate, bladder neck section without preservation, pedicle control without neurovascular bundle preservation, meticulous dissection of apical region, reconstruction of posterior bladder neck before the anastomosis.

Results: The operative time was 240 minutes without conversion to open surgery and an estimated blood loss around 520 mL. Neither intraoperative nor postoperative complications occurred and the hospital stay was about 36 hours. Pathological report confirmed a prostate adenocarcinoma Gleason 4+4, negative margins and stage pT3a pN0 pMx.

Conclusions: Laparoscopic surgery adopting oncological principles can be utilized with efficacy to selected patients with high risk localized and locally advanced prostate cancer maintaining the advantages of minimally invasive surgical approach.

ARTICLE INFO

Available at: www.brazjurol.com.br/videos/may_june_2012/Tobias-Machado_430_431video.htm

Int Braz J Urol. 2012; 38 (Video #3): 430-431

Submitted for publication:
February 15, 2012

Accepted after revision:
May 12, 2012

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EDITORIAL COMMENT

The authors describe and then demonstrate the technique of pure laparoscopic radical prostatectomy and extended pelvic lymph node dissection in a patient with high risk prostate cancer. They appropriately comment that surgery is able to achieve reasonable cancer control in this challenging group of patients with aggressive cancers. They clearly address the two main surgical principles that allow optimizing the procedure: Wide excision of the neurovascular bundles and bladder neck and the completion of an extended

lymph node dissection. The video demonstrates the gross appearance of an adequately performed lymph node dissection on the left side with clear anatomical definition of the distal common iliac vessels, full mobilization of the external iliac artery and vein and a clean obturator fossa. More importantly, they demonstrate that the procedure may be performed safely and efficiently through a pure laparoscopic approach in centers with surgeons experienced in advanced laparoscopy and without the need of the robot. This is of relevance as many centers in Latin America currently do not have access to robotic technology.

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