



Pelvic anatomy for gynecologic oncologists: autonomic bladder plexus

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SUMMARY

Minimal invasive approach surgery has enhanced the vision and ability to detail structures and, consequently, has changed the field of pelvic surgery and enabled surgeons to gain much more knowledge of the anatomy and the ability to remove a tumor. This video aims to illustrate a clear approach concerning the relation of anatomical structures in the female pelvis before proceeding to their section, with particular emphasis on the autonomic bladder plexus-sparing surgical maneuvers.

This surgery is performed with a robotic approach in a tertiary care academic center. A careful left-site pelvic dissection is visualized in this operation accomplished during a hysterectomy with the aim of performing a uterine graft implantation in a living donor (Research Ethics Committee and the Assistance Ethics Committee of Hospital Clínic de Barcelona (HCB/2016/0111) Bioethics Committee of Catalunya Study included in ClinicalTrials.org register (NCT04314869).

This video shows the following:

1. The development of retroperitoneal pelvic spaces from the bifurcation of the common iliac until the Yabuki space, showing the pelvic vascular system and nerve complex anatomy at this level.
2. The dissection of the ureteral tunnel up to its entrance to the bladder with the integrated uterine artery. The distal anatomy of the ureter can be visualized surrounded by multiple vessels and nerves in this particular zone.

3. The visualization of bladder branches of hypogastric nerve plexus before and after the section of inferior and middle vesical veins.^{1,2}

The robot-assisted laparoscopic surgery allows us to have a better and more precise knowledge of the pelvic anatomy. The comprehension of vesico-uterine ligament dissection and the relation of distal ureter path with middle and inferior vesical veins and the vesical branches of the autonomic pelvic plexus allows us to perform safer and more complex surgeries.

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Video article



Video 1 The middle and inferior vesical veins and vesical branches of the autonomic bladder plexus