

## SELECTIVE DISSECTION AND SPARING OF THE PELVIC SPLANCHNIC NERVES TO REDUCE POSTOPERATIVE FUNCTIONAL MORBIDITIES IN LAPAROSCOPIC RADICAL PELVIC SURGERY

### Hypothesis / aims of study

We investigated the feasibility and advantages of a “pelvic splanchnic nerve sparing” technique in laparoscopic gynecologic radical pelvic surgery.

### Study design, materials and methods

All consecutive patients who underwent laparoscopic assisted vaginal radical hysterectomy for cervical cancer or laparoscopic deep anterior rectum resection for deep infiltrating endometriosis of the rectovaginal space at our department were included prospectively in this study. Laparoscopic exposure of the pelvic splanchnic nerves from their emergence out of the sacral nerve roots S2, S3 and S4 to their anastomosis to the inferior hypogastric plexus has been systematically done prior to transection of parametric tissue or rectum mobilisation. Postoperative bladder functions were controlled in questionnaire, sonography and urodynamic testing.

### Results

Laparoscopic sparing of the pelvic splanchnic nerves during radical hysterectomy (n=432) was feasible on both sides in all patients. In endometriosis patients, it was feasible only in patients with a unilateral parametric lesion (n=181) whereas in bilateral lesion, because of strong parametric fibrosis, bilateral exposure was not feasible. Rate of postoperative bladder dysfunction was significantly reduced to less than 1% of the patients.

### Interpretation of results

Selective sparing of the pelvic splanchnic nerves during laparoscopic radical pelvic surgery in gynecology is a feasible and reproducible technique which preserves postoperative bladder function. However bladder functions after radical pelvic required long time follow-up since high residuals and bladder overdistention can induce over the year's myogenic lesions with secondary atonia.

### Concluding message

Postoperative bladder dysfunctions can not longer be accepted as a fatality of radical pelvic surgery. True nerves sparing techniques can only be effective and reproducible if they're based on anatomic knowledge and selective exposure of pelvic splanchnic nerves.

<b>Specify source of funding or grant</b>	<b>no</b>
<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>No</b>
<b>Is this a Randomised Controlled Trial (RCT)?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>local Ethics Committee</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>