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Letter to Editor

Repairing the Obturator Nerve in Robotic Pelvic Surgery: Make the Procedure more Perfect

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Editorial

We read with interest the excellent article by A. La Riva et al [1]. The authors represented five type of obturator nerve injury (ONI) that may occur during robotic pelvic surgery, included crush injury with a clip, transection injury, partial or complete transection with feasible approximation, complete transection with challenging approximation, complete ransection injury with hidden proximal nerve ending, and the corresponding management strategies, and the principle that the obturator nerve should be skeletonized and well identifiied from its surrounding structures no matter what processes were preformed. We are totally agree with that, and we hope that the authors would reply some unapprehensive points from us.

First, how to monitor the movement of the leg during robotic pelvic surgery? Did you set any electrode slices on the legs or anywhere else? And how to find that when retrospectively analyzed the video content? In our institution, we didn't perform any monitor on the leg and see any movement of the leg, since the leg were covered by the disinfectant drape. But we found small apart of patients complained dermatic hypoesthesia of the medial aspect of the mid-thigh and hip joint and/or the lower leg lack of strength when adducted after the process, but without any findable mistakes during robot-assisted laparoscopic prostatectomy.

Second, electrocautery was irreplaceable during the robotic pelvic surgery. Were that any signs can be seen on the monitor or the leg when the bipolar cautery or monopolar cutting were performed around the obturator nerve? The hit of the electrocautery can damage the tissue, for example, protein denaturation. Was nerve endings necessary to be trimmed and debrided before end-to-end anastomosis when monopolar scissors transected the obturator nerve? As we know, for the nervous system to function, neurons must be able to send and receive signals which depend on proteins called ion channels that span the membrane. Ion channels have different configurations: open, closed, and nactive [2]. But Cengiz Andan et al. represented a case that obturator nerve was transected, subsequently end-to-end anastomosis was performed [3]. And none significant loss of functions in adductor muscle was observed in the postoperative period. It is difficult to understand.

Third, the authors suggested once an ONI crush injury caused by a clip is identifiied, management only requires its safe removal. If the cases were found. The myelin sheath was still connected, while the nerve fibers had separated? In our opinion, trim and debridement and subsequently end-to-end anastomosis were necessary.

Fourth, feasible tension-free approximation is anther key point of end-to-end anastomosis. During the surgery, through flexing the legs out of the extended lithotomy trendelenburg position may allow approximation of the two nerve endings for adequate anastomosis. Did the patient need to hold the special position for better recovery? When was the patient allowed to off bed activity?

We thank the experience form the authors again. We did nothing in our limited cases of ONI before today. We would try to repair the obturator nerve when ONI happen in the future.

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Conclusion

Five type of ONIs and the corresponding management strategies were well represented during robotic pelvic surgery, but still lack of more details. The obturator nerve should be skeletonized and well identifiified from its surrounding structures during the procedure.

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