Partin and Briganti nomogram and EAU recommendations, pelvic lymphadenectomy wasn´t indicated. Preoperative findings showed the risk of lymph nodes involvement was less than 5%, so there was no indication to perform CT pelvic staging for intermediate tumors. Histopathological analysis of the surgical specimen showed prostate adenocarcinoma pT3b GS 4 + 4 R1 (1 x 1 mm – left seminal vesicle). After the operation the patient was fully continent, erection EHC grade 3 was achieved with the intracavernosal injection of 15 µg alprostadil. Post-operatively PSA was determined according to the recommended EAU procedures and its values did not exceed 0.05 ng/ml. In September 2016 there was a sudden elevation of PSA to 2.1 ng/ml, a month later the PSA increased to 2.5 ng/ml. Subsequently a 18-F fluoro-choline PET/CT scan was performed with the finding of a 16 x 7 mm solitary lymph node with markedly increased radiopharmaceutical accumulation in the pelvis near the right external iliac bundle. Therefore in January 2017, after a decision by a multidisciplinary team, a bilateral pelvic lymphadenectomy using a robot-assisted approach was performed.

During the operation we have extracted the lipolymphatic tissue around the external iliac artery, obturator nerve, the internal iliac arteries and from the presacral area. The operation lasted for 180 minutes and blood loss was 150 ml. The drains were removed on the 2nd and 4th postoperative day. The patient was discharged home on the 7th postoperative day and the sutures were removed 10 days after the surgery. Histopathologically, 18 lymph nodes in the extracted samples were found. Two lymph nodes contained prostate carcinoma metastasis. One of those lymph nodes that were extracted from the right side had the size of 24 mm, and the other one that was extracted from the left side had microscopic metastasis. Two months after the surgery PSA level was 0.248 ng/ml. If PSA increases in future, we plan salvage radiotherapy.

Conclusion: Robotic extended bilateral pelvic lymphadenectomy is a mini invasive, safe, technically feasible and effective treatment method for patients with a biochemical recurrence of prostate cancer and detected lymphadenopathy in the regional lymph nodes on diagnostic imaging methods. Nevertheless, due to the elimination of surgeon's hands tremors, the instrument´s seven degrees of movement, the high image resolution, the magnification of the operating field, the possibility of handling three surgical instruments and camera simultaneously, allows the surgeon to perform a faster and more accurate operation with a subsequent faster patient recovery.

KEY WORDS

Lymphadenectomy, prostate cancer, radical prostatectomy, robotic surgery.

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