Transversus abdominis plane block for open radical prostatectomy

Mónica Ferreira¹, Joana Paulo¹, Manuel Silva¹, Germano Cardoso¹
¹Instituto Português de Oncologia do Porto Francisco Gentil, EPE

INTRODUCTION

The transversus abdominis plane (TAP) blockage involves the sensory afferents of the anterior abdominal wall (T7 - L1). It has been described as an alternative to epidural analgesia in retropubic radical prostatectomy without prolonged hospital stay. Furthermore, its role has been established on the reduction of both post-operative pain and morphine consumption.

MATERIAL AND METHODS

This retrospective comparative observational study was performed through electronic clinical process consultation, from January to November 2017.

All patients undergoing Open retropubic radical prostatectomy were included and divided in TAP group or Non-TAP group. In the first one, ultrasound-guided bilateral block with 5 mg/mL Ropivacaine (20 mL for each side) was performed after induction. General anesthesia was induced with intravenous fentanyl, propofol and rocuronium. Anesthesia was maintained with desflurane, rocuronium and fentanyl according to patient's demands.

Both groups had the same conventional analgesia protocol for the postoperative period – tramadol 100 mg plus droperidol 0.625 mg

every 8h and paracetamol 1 g every 6h; morphine was prescribed in SOS.

We reviewed demographic characteristics, consumption of opioids during the intra-operative period and in the first 24 hours, pain at rest and on movement during the same period of time, length of stay in the recovery room, conscience level, timing of the first rescue analgesia and nausea and vomiting episodes.

Statistical analysis was performed using SPSS 20, with the Fisher test for categorical variables and the Mann-Whitney test for continuous variables. A P value < 0.05 was considered as statistically significant.

RESULTS AND DISCUSSION

37 patients were included.

Demographic characteristics

	TAP	Non-TAP
Age	63 [56 - 69]	65,6 [55 - 72]
ASA 1	0	1
ASA 2	7	17
ASA 3	5	7
Total	12	25

Morphine consumption Post-operative first 4 hours

Fentanyl consumption intra-operative period

Pain evaluation Post-operative first 4 hours

CONCLUSION

Despite not achieving better pain control, the TAP block enabled a lower opioid consumption during the intraoperative period. Since opioid's immunosuppressive role is well established, these results may bring to light an alternative and effective approach to oncological patients. Nonetheless, larger size prospective studies are required to better clarify the long-term impact of lowering opioid consumption during the intra-operative period.

Bibliography

1. Transversus abdominis plane block or subcutaneous wound infiltration after open radical prostatectomy: a randomized study. Skjelsager. A *et al*, Acta Anaesthesiol Scand 2013; 57: 502–508