The efficacy and safety of epidural oxycodone in pain management after gynaecologic laparoscopy

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Background

Early pain after laparoscopic surgery is often moderate to severe (1). Epidural oxycodone penetrates readily into cerebrospinal fluid and may be more potent than intravenous (i.v.) oxycodone (2). In this randomised, double blind clinical trial, we have assessed the analgesic efficacy of epidural oxycodone after gynaecologic laparoscopy.

Methods

We enrolled 60 women, aged 23-71 years, undergoing elective gynaecologic laparoscopy under standardized general anaesthesia. Postoperatively, the patients were administrated either i.v. saline and epidural oxycodone 0.1 mg·kg⁻¹ (EPI-group, n=31) or i.v. oxycodone 0.1 mg·kg⁻¹ and epidural saline (IV-group, n=29). For background analgesia the subjects received i.v. paracetamol and dexketoprofen (a NSAID). The primary outcome was the amount of i.v. fentanyl for rescue analgesia during the first four postoperative hours. Analysis of continuous data were performed with the two sample t-test or the Mann-Whitney U-test. Categorical data were analysed using the Chi-Square test.

Results

The patient characteristics are presented in table. The median amount of fentanyl for rescue analgesia during the first four postoperative hours was 50 (0-450) µg in the EPI-group and 100 (0-550) µg in the IV-group, p=0.025. More patients had pruritus in the EPI-group than in the IV-group, 17 vs. 8, respectively, p=0.032.

Conclusion

Analgesic efficacy of epidural oxycodone was superior compared to that of i.v. administration in early pain management after laparoscopic surgery

Table. Patient characteristics. Data are mean (standard deviation) and number of cases.

Variable	EPI-group n=31	IV-group n=29	p-value
Age, yr	52 (12)	53 (13)	0.16
Weight, kg	72 (13)	74 (15)	0.65
Height, cm	162 (4.9)	165 (6.9)	0.080
BMI, kg m ⁻²	27 (4.3)	27 (4.7)	0.95
ASA, I/II/III	6/21/4	7/18/4	0.89
Duration of surgery, min	210 (98)	220 (111)	0.88
Intraoperative bleeding, mL	270 (370)	290 (510)	0.16

References

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