

Nalbuphin

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Effect of Nalbuphin Dosage and Incision Length of Abdominal Wall on Return of Bowel Function after Colectomy

beneficial for the return of bowel function. J Korean Soc Coloproctol 2001;17:239-242

Key Words : Nalbuphin, Incision length, Bowel functi

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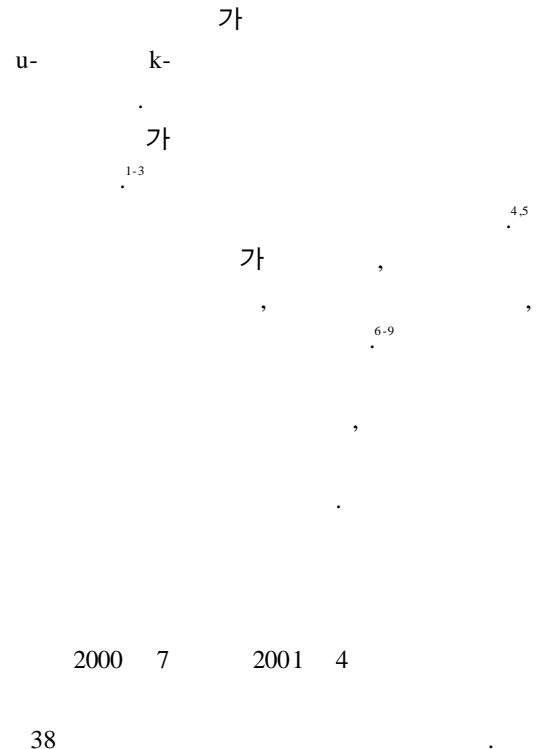
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Purpose : Nalbuphin has definitive advantages over more commonly used narcotic analgesic: a ceiling respiratory depression, little effect on the cardiovascular system and a lower incidence of nausea and vomiting. use of a small incision results in early return of bowel function and shortening of hospital stay. Narcotic use has been felt to be proportional to the length of the abdominal incision. The aim of this study was to determine whether return of bowel function after colectomy in the operative period and incision length were directly proportional to the narcotics.

Methods : 38 patients undergoing colon and rectal resection for benign and malignant colorectal cancer between July 2000 and April 2001 participated in this study. Nalbuphin and ketorolac was administered as continuous patient controlled analgesia for 48 hours. Additive morphine was used for further pain control. Patient was followed for return of bowel function as measured by audible bowel sounds, first passage of flatus and first defecation.

Results : There was a significant correlation between amount of total nalbuphin administered and return of bowel function as measured by bowel sound ($r=0.8$; $P=0.01$), time to first passage of flatus ($r=0.76$; $P=0.01$) and time to first defecation ($r=0.58$; $P=0.05$). Incision length did not show any correlation with either nalbuphin use or return of bowel function.

Conclusions : There is no apparent benefit for shorter incision length. Return of bowel function is influenced by use of postoperative nalbuphin. So adequate sized minimal incision is needed and lesser use of narcotics



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(Table 1).

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30 40 mg, (ketolorac) 150 180 mg,

Table 1. Patient characteristics

Characteristics	Total (N=38)
Age (years)	
Mean	61
Range	41 81
Sex (M/F)	1.35 : 1
Surgical procedures	
Lower anterior resection	16 (42.1%)
Right colectomy	7 (18.4%)
Sigmoid resection	5 (13.2%)
Anterior resection	4 (10.5%)
Left colectomy	3 (7.9%)
Colostomy closure	3 (7.9%)
Incision length (cm)	
Mean	17
Range	11 25
Incision method	
Midline	28 (73.6%)
Paramedian	10 (26.4%)

droperidol 2.5 mg 48

가 가 7 10 mg

6

, 가 , 24

. 가 (mg/kg) (cm)

SPSS spearman correlation coefficients

0.64 (0.26 1.69) mg/kg, 가 0.99
(0.52 1.72) mg/kg, 1.17
(0.66 1.81) mg/kg

27.3 (10 67) hr, 가
50.8 (16 138) hr,
77.6 (22 140) hr (Table 2).
(r=0.89; P=0.01), 가

Table 2. Time of bowel function recovery and nalbuphin dosage

	Mean	Range
Bowel function recovery (hrs)		
First bowel sound	27.3	10 67
First flatus	50.8	16 138
First bowel movement	77.6	22 140
Total nalbuphin dosage used until		
First bowel sound	0.64	0.26 1.69
First flatus	0.99	0.52 1.72
First bowel movement	1.17	0.66 1.81

nalbuphin dosage (mg/kg).

Table 3. Intercorrelations (and P values) of the bowel function, total nalbuphin dosage and incision length

	Total nalbuphin	Incision length
Hours to the first bowel sound	0.89 (0.01)	-0.03 (0.90)
Hours to the first flatus	0.76 (0.01)	-0.08 (0.75)
Hours to the first bowel movement	0.58 (0.05)	-0.04 (0.86)

Table 4. Intercorrelations (and P values) of the total nalbuphin dosage and incision length

	Incision length
Nalbuphin used to the first bowel sound	-0.05 (0.83)
Nalbuphin used to the first flatus	0.18 (0.47)
Nalbuphin used to the first bowel movement	0.19 (0.44)

(r=0.76; P=0.01) (r=0.58; P=0.05) 가 (r=-0.03; P=0.90),

가 (r=-0.08; P=0.75)

(r=-0.04; P=0.86) 가 (Table 3).

(r=-0.05; P=0.83), 가

(r=0.18; P=0.47), 가 (r=0.19; P=0.44) (Table 4).

(migrating

motor complex, MMC)

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가

MMC

⁶⁻⁹

MMC

¹⁰

가

²¹⁻²³

MMC

가

¹⁰

가

가

24

72

가

. Condon Sarna¹²

¹³⁻¹⁵ Cali ¹⁶

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REFERENCES

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(Keto-

(Keto-

rolac) Droperidol
rolac)

(Ketorolac)

40 45%

¹⁷⁻¹⁹

dro-

peridol

, sero-

tonin, norepinephrine

ad-

renergic

²⁰

(Ketorolac) droperidol

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