

Ambulatory Hemorrhoidectomy under Local Anesthesia

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Purpose: Hemorrhoidectomy can be associated with severe pain in the immediate postoperative period. The purpose of this study was to evaluate the advantages and feasibility of hemorrhoidectomy under local anesthesia (pudendal nerve block).

Methods: From September 1998 to August 2000 we performed 77 hemorrhoidectomy with local anesthesia in Colorectal unit under the ambulatory surgery regimen. 0.5% lidocaine and 0.25% bupivacaine mixed by 1:1 ratio were used for pudendal nerve block and local anesthesia.

Results: Using pudendal nerve block, ambulatory hemorrhoidectomy with or without band ligation were done in 77 patients. Male to female ratio was 46:31, mean age 35.2 years. 3 major piles plus 1 minor pile were present in 40 patients (51.9%). We injected mixed lidocaine and bupivacaine solution through external sphincter and rectalis muscle. All patients were successfully operated without conversion to general anesthesia or even venous anesthetic injection. Postoperative pain were compared the patients who were operated hemorrhoidectomy under general (spinal or caudal) anesthesia during the same time. The pain were assessed using visual analog pain scale at 24 hours, 48 hours and 72 hours (where 1 presented no pain and 10 represented worst pain imaginable) by phone call examination. Pain scores for pudendal anesthesia group at 24, 48, and 72 hours were 5.32, 3.07 and 2.21, respectively, compared with other anesthesia group with 6.47, 4.52 and 3.05. These differences were statistically significant

($p < 0.05$). Post operative pain was successfully controlled with home care and oral medications.

Conclusions: Under local anesthesia with pudendal nerve block, ambulatory hemorrhoidectomy were able to decrease pain and urinary retention in comparison to or caudal anesthesia group. Ambulatory hemorrhoidectomy is useful, low cost and feasible. **J Korean Soc Coloproctol 2001;17:213-219**

Key Words: Ambulatory hemorrhoidectomy, Local anesthesia, Pain

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1999

2001

(pudendal nerve block)
(ambulatory surgery)

가

1)

1998 9 2000 8 2
2 3

77

2)

(Jack knife) 0.5% lido-
caine (, ,) 0.25% bupivacaine (, ,) 1:1
23 gauze (3 9)
(wheal)

(aspiration) (Fig. 1).
6 12
12
가
(Fig. 2). 가
, 1 가

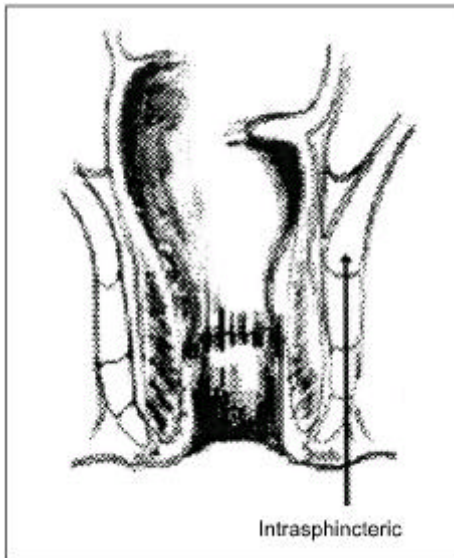


Fig. 1. Route of injection of local anesthetic agents.

(ischial spine) 23 spinal
gauze

Hill-Ferguson retractor
3.0 chromium catgut

1 : 200,000

(Fig. 3),

, V
1 2 cm scalpel ,
fine forcep
anoderm

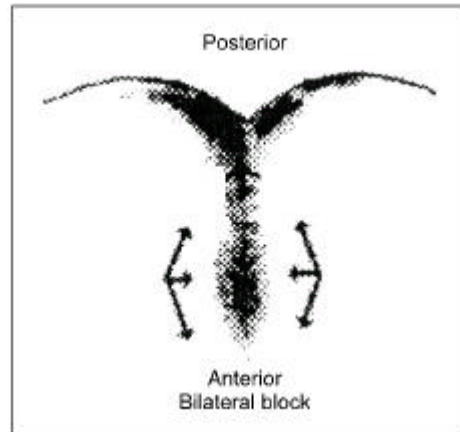


Fig. 2. Direction of infiltration of local anesthetic agents.

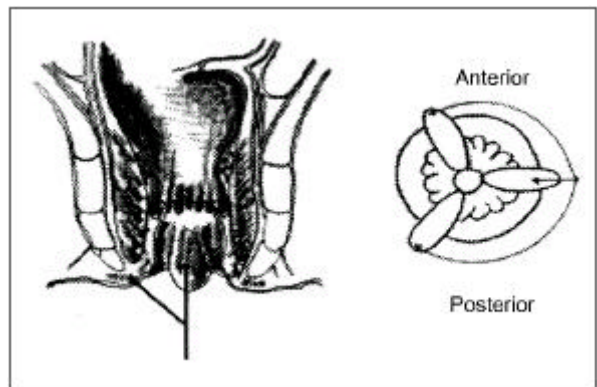


Fig. 3. Perianal hemorrhoidal infiltration.

3) vertical suture betadine 3) 4) 77 33 5 28 109 4 75 12.4 Verbal rating pain scale (1 10 , 1 , 10) 24, 48, 72 가 chi-square test t-test 95% SPSS (ver. 8.0) 1) 가 46 (59.7%), 가 31 (40.2%) , 20, 30, 40 (Table 1).

Table 1. Frequency of age

Age	Case	(%)
11 20	3	(3.8)
21 30	14	(18.2)
31 40	19	(24.7)
41 50	22	(28.6)
51 60	9	(11.7)
61 70	8	(10.3)
71	2	(2.7)
Total	77	100.0

Table 2. Pile numbers and operation methods

Methods	Pile numbers					Total
	1	2	3	4	5	
Hemorrhoidectomy	2	22	9			33
Band ligation +hemorrhoidectomy			2	31	11	44
Total	2	24	40	11		77

2)

3 가 51.9% 가 1 가 (Table 2), 가 33 (28.5%), 가 44 (37.9%) (Table 2).

3)

가 77 4 (5.1%) , 4 (5.1%)

2

, 2 24 가

4)

9 (11.6%) ,

가 2

3

6)

12.4

71

가

5)

77

43.7%,
91.5%

가 47.8%

28

(1)

109

(Table 4).

, 4

75

(2)

24, 48,

72

, 1

가

Pudendal nerve block

3

1965 Moore

3.07, 2.21

2

6.47, 4.52, 3.24

(Table 3).

, posterior perineal block, ischiorectal fossa block, perianal block, perineal anesthesia

(pudendal nerve)

1

2 (7.1%)

,

, 2

15 (20%)

12

(p < 0.05).

4

1

2 , 2

5

,

2

(

)

Table 3. Comparison of pain scoring between two groups

Time	Group 1*	Group 2†	P-value
24 hr	5.32 ± 2.98	6.47 ± 2.51	0.053
48 hr	3.07 ± 1.98	4.52 ± 2.48	0.007
72 hr	2.21 ± 1.32	3.24 ± 2.23	0.005

*Group 1 is local anesthesia group (pudendal nerve block);

† Group 2 is regional (spinal or caudal) anesthesia group.

Table 4. Subjective satisfaction of ambulatory hemorrhoidectomy under local anesthesia

Subjective satisfaction	Case	(%)
Complete regression	31	43.7
Relative regression	34	47.8
Defer little from preoperative symptom	6	8.5
Aggravate symptom	0	0
Total	71	100.0

2, 3, 4

(nervi erigentes)

가

가

5,6

4

4

가

50%

가

4

(Fig. 3).

Gabrielli

10

가

(anococcygeal nerve)

2

가

360°

가

Hodgson Morgan CO2

0.5% lidocaine 20 ml 0.25% bupivacaine 20

Laser

ml 1 : 1

,¹¹ Choen

가

가

,¹²

Milligan-Morgan

Ferguson

가

pulse oximetry NIBP

,⁷

가

0% 70%

bupivacaine

,¹³⁻¹⁵

가

detrusor

benzodiazepine, Demerol, midazolam

,¹⁶

,⁷

,^{7,16}

가

,⁷

Nivatvongs

A, B, C 3

(36%,

10%),

가

가

B type

24

가

,^{18,19}

가

Luck Hewet

A

C type

가

,²⁰

American Society of Anesthesiologist Grade 4 5

Gabrielli

10

가

,⁷

가

가

가

,¹⁰

opioid

90

가

가

acetaminophene
가

(48 72 P<0.05).

가
20 40

(ambula-

tory surgery)

2 가
가

가 5 , 2
44 8 ,
7 8 5.74 : 1

21-24

가

1998 9 2000 8 2
77 2

3

가

20%

가

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