

# Tarasyn<sup>®</sup>

## Effects of Intraoperative Injection of Tarasyn<sup>®</sup> for Pain Relief on Patients Undergoing Hemorrhoidectomy

—Result of a prospective, randomized trial—

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**Purpose:** The aim of this prospective study was to evaluate whether additional intraoperative injection of Tarasyn<sup>®</sup> (ketorolac tromethamine) provided a preemptive analgesic effect that improved postoperative pain. **Methods:** Sixty patients scheduled for hemorrhoidectomy were randomly assigned to the study and control groups. For the control group (n=32), patients were treated with standard intravenous injections of Nubain<sup>®</sup> (Nalbuphine hydrochloride; Jeil Pharmaceuticals Co, Seoul) per 8 hours for three times postoperatively for pain relief. In the study group (Tarasyn<sup>®</sup> group, n=28), 60 mg of Tarasyn<sup>®</sup> (ketorolac tromethamine; Roche Korea, Seoul) was injected into the internal sphincter muscle and around the operative wound at the time of hemorrhoidectomy as well as standard intravenous injections of Nubain<sup>®</sup>. Parameters were measured of pain score from 0 (no pain) to 10 (agonizing pain), painless sound sleep, additional analgesic requirements, time to first bowel movement, and postoperative urinary retention. **Results:** Rate of painless sound sleep was 75.0% and 53.1% in the Tarasyn<sup>®</sup> and the control groups, respectively, which was significant statically between two groups (P < 0.05). Time to first bowel movement was 2 and 3.2 days in Tarasyn<sup>®</sup> and the control groups, respectively, which was also significant statistically (P < 0.05). Voiding difficulty developed in one case (3.5%) in the Tarasyn<sup>®</sup> group and he needed catheterization. In the control group, however, the number (15 cases, 46.9%; P < 0.001) was much higher requiring more catheterization (13 cases, 40.9%; P < 0.001). Mean pain scores was significant statically between two groups (P < 0.001). **Conclusion:** The data suggest that the use of intraoperative injection of Tarasyn<sup>®</sup> is associated with a significant decrease in pain and urinary complications after hemorrhoidectomy. (JKSCP 2000;16:371–375)

**Key Words:** Tarasyn<sup>®</sup>, Hemorrhoidectomy, Postoperative pain, Urinary complication

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24 가 ,  
(nonsteroidal anti-inflammatory drugs;  
NSAIDs) Tarasyn<sup>®</sup>( : ketorolac

tromethamine) prostaglandin 2 cc  
 36 가 가  
 3 1,000 ml  
 Tarasyn<sup>®</sup> 가  
 가 Nubain<sup>®</sup> 가  
 3 3  
 가  
 1997 10 1999 4  
 3  
 Tarasyn<sup>®</sup> (Tarasyn<sup>®</sup>)  
 ( )  
 (saddle block) jack-knife  
 5 cc 2% lidocaine 1 : 200,000  
 epinephrine  
 (pedicle)  
 vicryl 3-0 bed,  
 가  
 Bosmin<sup>®</sup> (0.1% epinephrine; )  
 8 Nubain<sup>®</sup>  
 (Nalbuphine hydrochloride; ) 1 (10  
 mg/ample) 3 , Tarasyn<sup>®</sup>  
 Tarasyn<sup>®</sup> ( , )  
 Nubain<sup>®</sup>  
 . Tarasyn<sup>®</sup>  
 60 mg (30 mg/2 ml/ample) 2 2 cc  
 2 cc,

24  
 가  
 In-Stat<sup>®</sup> (GraphPad Software Inc., San Diego, CA, USA)  
 t-test , 가  
 test Fisher's exact  
 P < 0.05

**Table 1.** Patient and operation details

	Tarasyn <sup>®</sup> group	Control group
Number of cases	28	32
Age (year)	21.4	22.1
Operation time (mins)		
average (range)	35.2 (15 60)	38.1 (25 65)
Pile numbers (average)	3.2	3.5
Postoperative bleeding		
Mild	5	6
Moderate	0	0
Severe	0	0

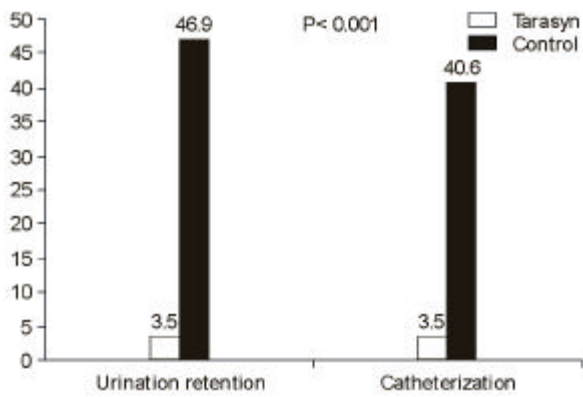


Fig. 1. Urinary complications (P < 0.001).

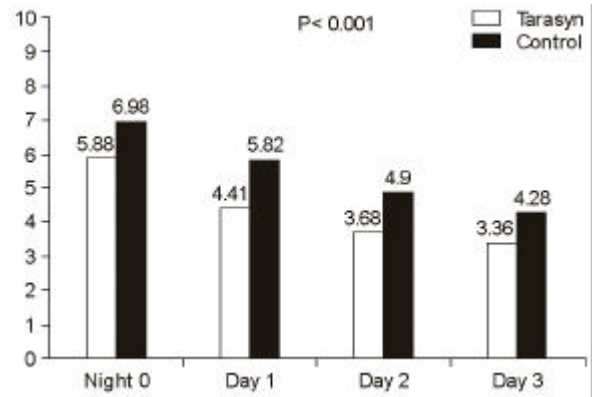


Fig. 2. Postoperative pain score (P < 0.001).

Table 2. Postoperative pain parameters

	Tarasyn® group	Control group	P
Night 0 sound sleep	75.0%	53.1%	< 0.05
Additional analgesics	10.7%	15.6%	> 0.05
First bowel movement (day)	2	3.2	< 0.05

1, 2, 3 Tarasyn®  
5.88 6.98, 4.41 5.82, 3.68 4.9,  
3.36 4.28 (P < 0.001).

가

Tarasyn® 5, 6

가

Table 2

Tarasyn® 75.0%  
53.1%, 가 10.7% 15.6%,  
2 3.2

( P < 0.05) 가  
가 (P > 0.05).

, Fig. 1

Tarasyn® 1 (3.5%),  
15 (46.9%) 13 (40.6%)

0.001).

Fig. 2

(night 0)

가  
, London<sup>10</sup> (laxative)  
가 bupiva-  
caine  
가 1/3  
2,6  
가 20%  
11,12  
가 0.2% glyceryl-  
trinitrate (che-  
mical sphincterotomy) 가  
가 dextromethorphan  
13  
14,7  
가 Carapeti<sup>5</sup>  
metronidazole



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