

# Does Continuous Peripheral Nerve Block Provide Superior Pain Control to Opioids? A Meta-Analysis

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B. M.; Dr. A. V. M. M. G. U. W.;  
W. P. C. O. M. P. R.

A. (CPNB)  
We (1966 M 21, 2004)  
CPNB  
N. 603  
I. /  
(≥18), CPNB

(P < 0.001). T.  
0.001), 48, (P < 0.001), 72, (P < 0.001)  
(P < 0.001). R.  
(P < 0.05). N. /  
(P < 0.001). A.  
(P < 0.001). CPNB  
(A., A. 2006;102:248-57)

**S** C.  
(CPNB)  
(1,2).  
E.

(4-7).  
N. CPNB  
A. CPNB  
T. (RCT). (1)

... ( ... / ... ), 3) ... , 4) ...

## Methods

A ... O ... M ... RCT ...  
CPNB ... 1966 ... M ... 2004  
... P ... (13,752 ... )  
... (7399 ... )  
788 ... L ... RCT ...  
... (≥19 ... ) ... 236 ... W ...

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## Results

A total of 19 patients (603) were included in the study. The mean age was 60.3 years (range 45-75). The mean duration of anesthesia was 190 minutes (range 120-240). The mean duration of surgery was 120 minutes (range 90-150). The mean duration of recovery was 30 minutes (range 20-40). The mean duration of hospital stay was 2 days (range 1-3). The mean duration of follow-up was 12 months (range 6-18). The mean duration of follow-up was 12 months (range 6-18).



**Table 4.** Incidence of Postoperative Nausea and Vomiting (PONV) in Patients Receiving General Anesthesia for Various Surgical Procedures: A Systematic Review and Meta-Analysis

Study	Year	Design	Sample Size (N)	Incidence (%)	Intervention	Control	Blinded?	Prospective?	Outcomes
H...	1996	T...	3-, -1 11 C 11 O 11 O*	0.125%	M... IV PCA (O) (C)		Y	Y	SS... CPNB, N SS VAS
G...	1999	T...	3-, -1 22 C 20 O 20 C-	0.2%	M... IV PCA (O) (C)		N	Y	N SS... VAS
S...	1991	T...	3-, -1 13 C 16 O	0.5%	M... IV PCA, M... IM PRN (O) (C)		N	N	SS... N SS VAS
G...	1996	F...	10 C 10 O	0.5%	M... IV PCA D... PO >48... (O) (C)		N	N	SS... VAS (24, 48, 72...) CPNB
C...	2004	S...	10 C 10 O	0.2%	M... IV PCA (O) (C)		N	N	SS... VAS (24, 48...) CPNB, N SS
B...	1992	T...	3-, -1 19 C 18 O	0.125%	P... IM (O) (C)		N	N	SS... VAS 24... CPNB
S...	1998	T...	3-, -1 15 C 15 O	0.125% 0.1 μg / 1 μg / L...	M... IV PCA (O) IM P... (C)		N	N	SS... VAS (24, 48...) (24...) (...) 6... CPNB N SS
C...	1999	H...	20 C 20 O 3-, -1	0.25%	M... IM		N	N	SS... VAS (24, 32... 64...) CPNB
C...	1999	M...	20 C 19 O	1% L... 2 μg / 0.03 /	M... IV PCA (O) M... SC (C)	N	N	SS... VAS (24... 48...), (... 5... CPNB	
S...	1996	F...	3-, -1 10 C 13 O	0.25%	M... IV/IM (O) (C)	N	N	N SS... VAS	
I...	2002	A...	15 C 15 O	0.2%	O... PO (O) (C)	Y	Y	SS... VAS (24, 48...), (... 48...) CPNB	
W...	2003	A...	10 C 10 O	0.25%	M... IV PCA IV PRN... PO (O) (C)	Y	Y	SS... VAS (24, 48, 72...), CPNB, F... CPNB	

\*T... 0.1%...  
 || N = ...; C = ...; O = ...; IV = ...; SS = ...; VAS = ...  
 CPNB = ...; PCA = ...; IM = ...; SC = ...



**Table 5.** VAS S<sub>1</sub> P S<sub>2</sub> C L

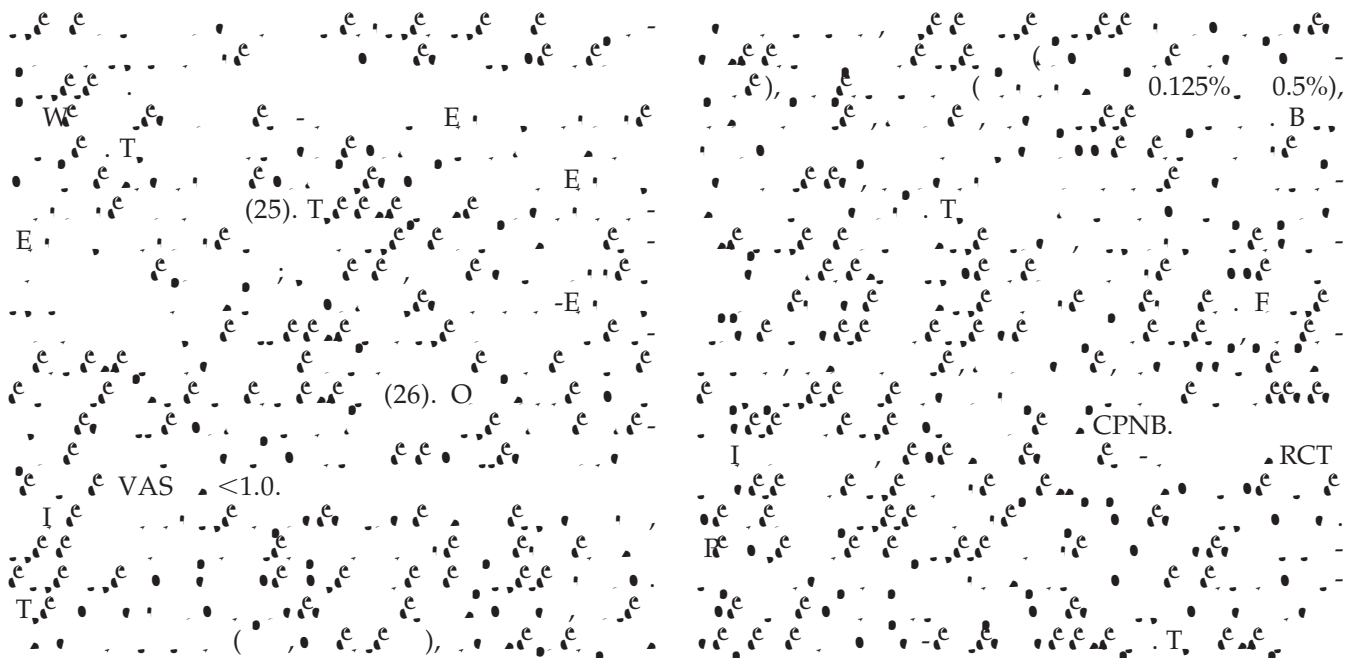
L	M VAS S <sub>1</sub>			M VAS S <sub>2</sub>	
	24	48	72	24	48
I	<i>P</i> < .001	<i>P</i> < .001		<i>P</i> < .001	<i>P</i> < .001
C	1.0 (0.3 1.7)	0.6 (0.0 1.3)		2.5 (1.7 3.3)	1.5 (0.7 2.3)
O	4.3 (3.1 5.5)	4.0 (2.9 5.1)		6.1 (4.8 7.4)	5.1 (3.9 6.3)
N	1	1		1	1
I	<i>P</i> < .001	<i>P</i> < .001		<i>P</i> < .001	<i>P</i> = 0.05
C	1.4 (1.1 1.7)	0.5 (0.3 0.7)		3.8 (1.9 5.7)	3.9 (2.0 5.8)
O	3.6 (2.0 4.2)	2.3 (1.9 2.7)		8.0 (6.7 9.3)	6.5 (4.5 8.5)
N	6	6		1	1
R/L					
P	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001
C	2.1 (1.5 2.7)	1.6 (1.2 2.0)	1.5 (1.3 1.7)	3.8 (3.2 4.4)	2.7 (2.3 3.1)
O	4.0 (3.7 4.3)	3.2 (2.9 3.5)	2.7 (2.1 3.3)	5.4 (4.8 6.0)	4.6 (4.1 5.1)
N	8	8	3	3	3
S	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .01
C	0.9 (0.6 1.2)	0.9 (0.6 1.2)	1.6 (1.4 1.8)	1.9 (0.2 3.6)	2.6 (0.9 4.3)
O	4.6 (4.0 5.2)	3.5 (2.9 4.1)	3.2 (2.8 3.6)	7.2 (6.4 8.0)	5.6 (4.4 6.8)
N	2	2	1	1	1

M (VAS) N 95%

**Table 6.** S E

S	C	O	<i>P</i>	Q	NNT
N /	38/182 (20.9%)	95/195 (48.7%)	<0.001	0.28	4
S	12/45 (26.7%)	23/44 (52.3%)	<0.012	0.33	4
P	11/113 (9.7%)	29/109 (26.6%)	<0.001	0.30	6
S /	22/70 (31.4%)	9/60 (15.0%)	<0.023	0.39	

I 182 R 38/182 NNT = 38/182 N





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T. J. B. I., MD, A. P. /  
D. A., U. F., G. /  
F. /

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## Appendix: Articles Meeting Inclusion Criteria

1. B. A., R. H., B. P., P. P. 0.2% IV 2000;92:102-8.
2. W. PF, I. T, S. GD, T. 2003;97:1303-9.
3. G. JP, W. S, G. MJ. P. B. J. S. 1996;83:1735-8.
4. C. X, B. Y, B. P, E. A. 1999;91:8-15.
5. C. O, P. J, B. J, D. D. T.

6. I. • BM, M • TE, W • RD, E • FK. C . . . . .