Chirurgie Lourde et Anesthésie péridurale

Et vos patients vous remercieront…!

Dr H ROSAY
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Pas de conflit d'intérêt

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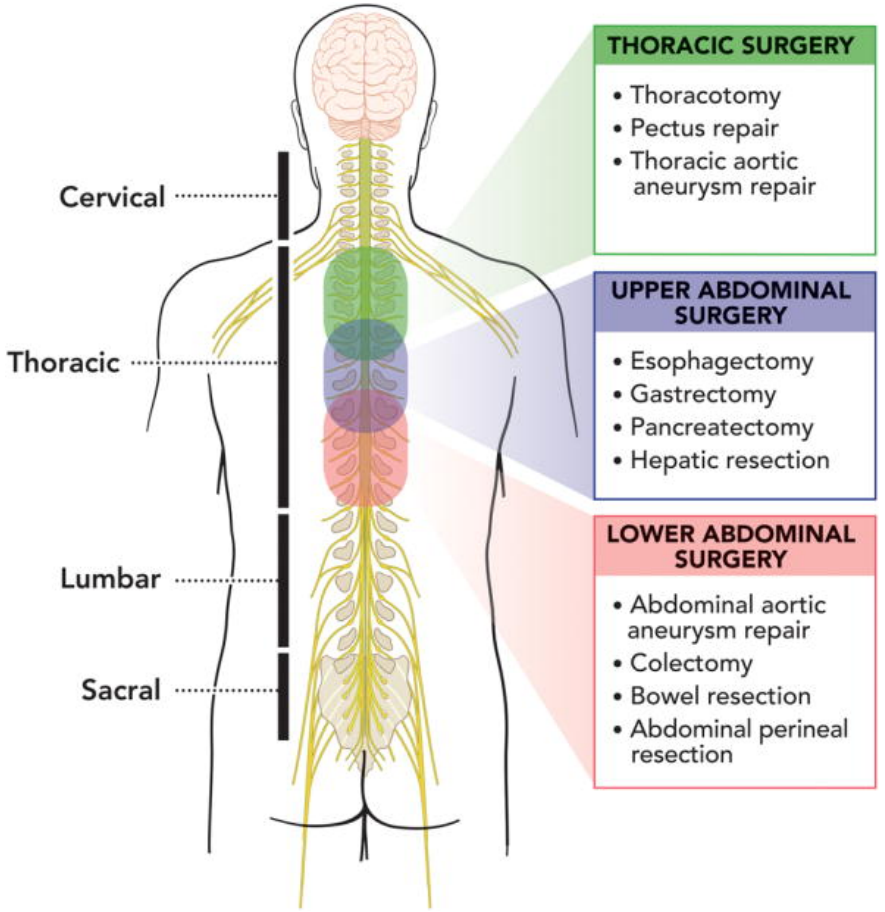
Take home message

La péridurale est la plus efficace des méthodes antalgiques en chirurgie lourde.

Indications de la péridurale thoracique

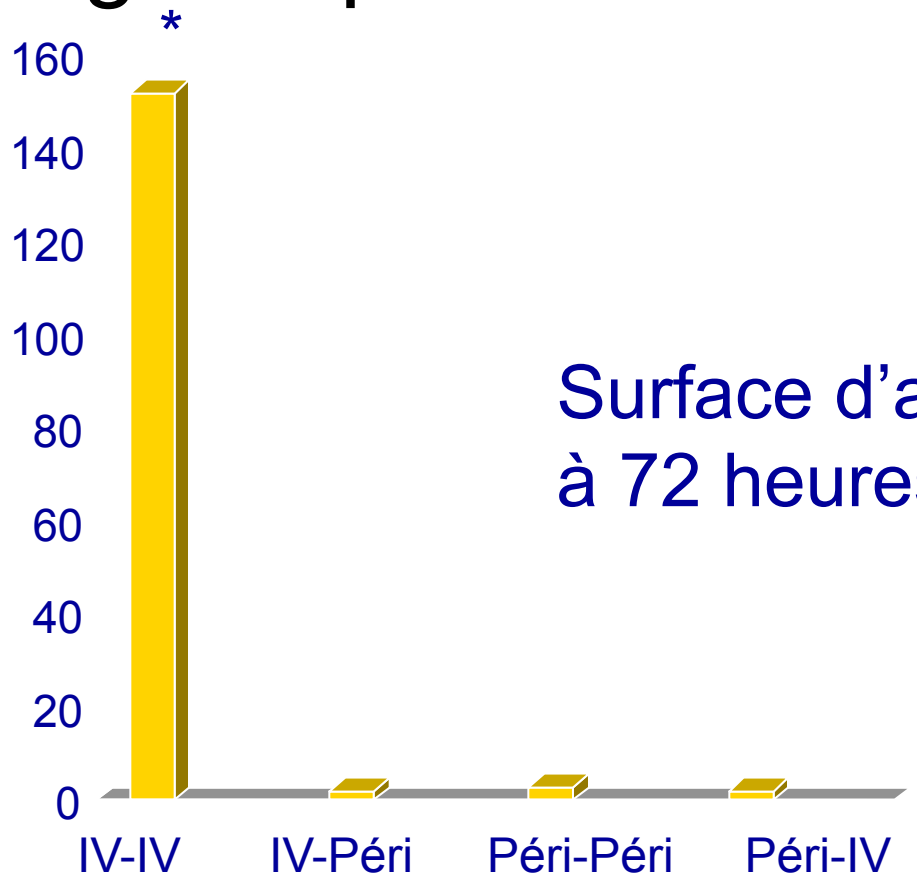
- Chirurgie intra-abdominale majeure : gastrique, pancréatique, colique, chirurgie du grêle, hépatectomie, CHIP
- Œsophagectomie
- Chirurgie thoracique
- Gynécologie carcinologique: debulcking
- Urologie: prostatectomie, cystectomie



Fletcher D, Jayr C. Ann Fr Anesth Reanim. 2009 Mar;28(3):e95-e124
Manion SC, Brennan TJ. Anesthesiology. 2011; 115(1):181-188

Péridurale et douleur aigue post op

Chirurgie Abdominale
Analgésie péridurale > PCA



Surface d'allodynie
à 72 heures ($cm^{2)}$

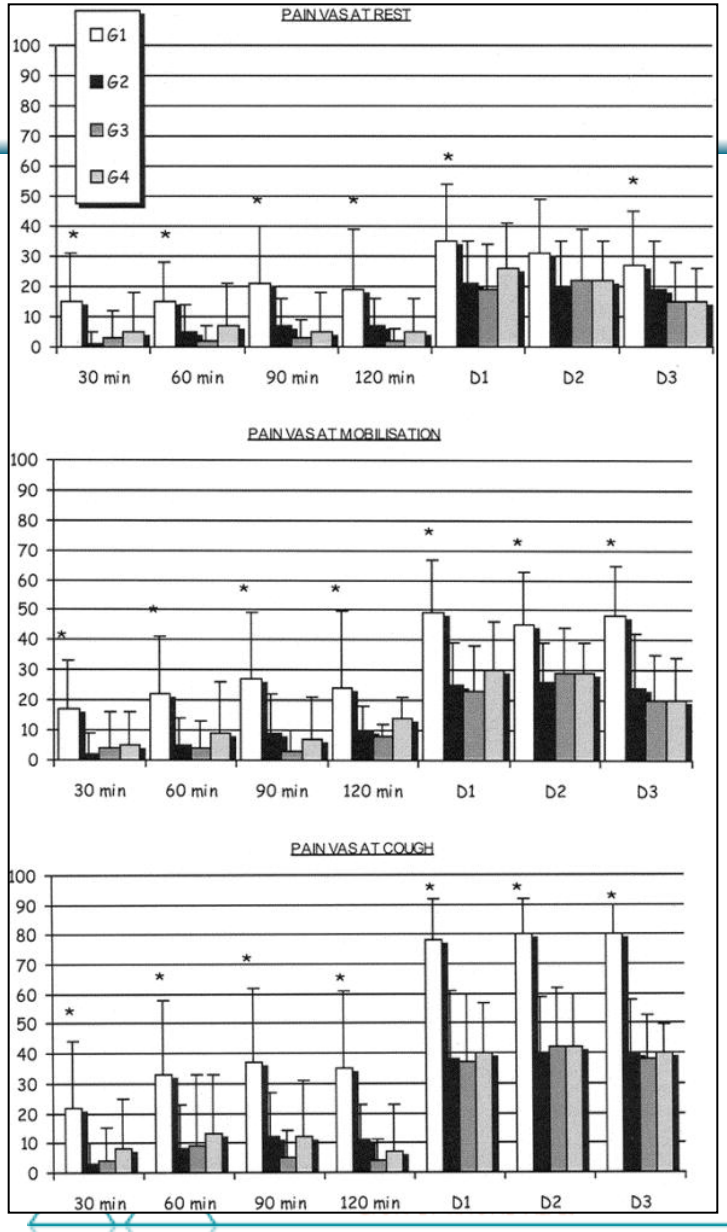
4 groupes: IV-IV, IV-Péri. Péri-Péri. Péri-IV

Anesthesiology 2005;

Anesthesiology 2005; 103:813–20

Intraoperative Epidural Analgesia Combined with Ketamine Provides Effective Preventive Analgesia in Patients Undergoing Major Digestive Surgery

Patricia Lavand'homme, M.D., Ph.D.,* Marc De Kock, M.D., Ph.D.,† Hilde Waterloos, R.N.‡



Analgésie péridurale > PCA

Fig. 2 Immediate postoperative visual analog scale (VAS) scores. Pain VAS scores from 0 (no pain) to 100 (maximal pain) at rest, at mobilization, and at cough. * P

Intraoperative Epidural Analgesia Combined with Ketamine Provides Effective Preventive Analgesia in Patients Undergoing Major Digestive Surgery.
Lavandhomme, Patricia; De Kock, Marc; Waterloos, Hilde

Anesthesiology. 103(4):813-820, October 2005.

APD et douleur chronique postopératoire

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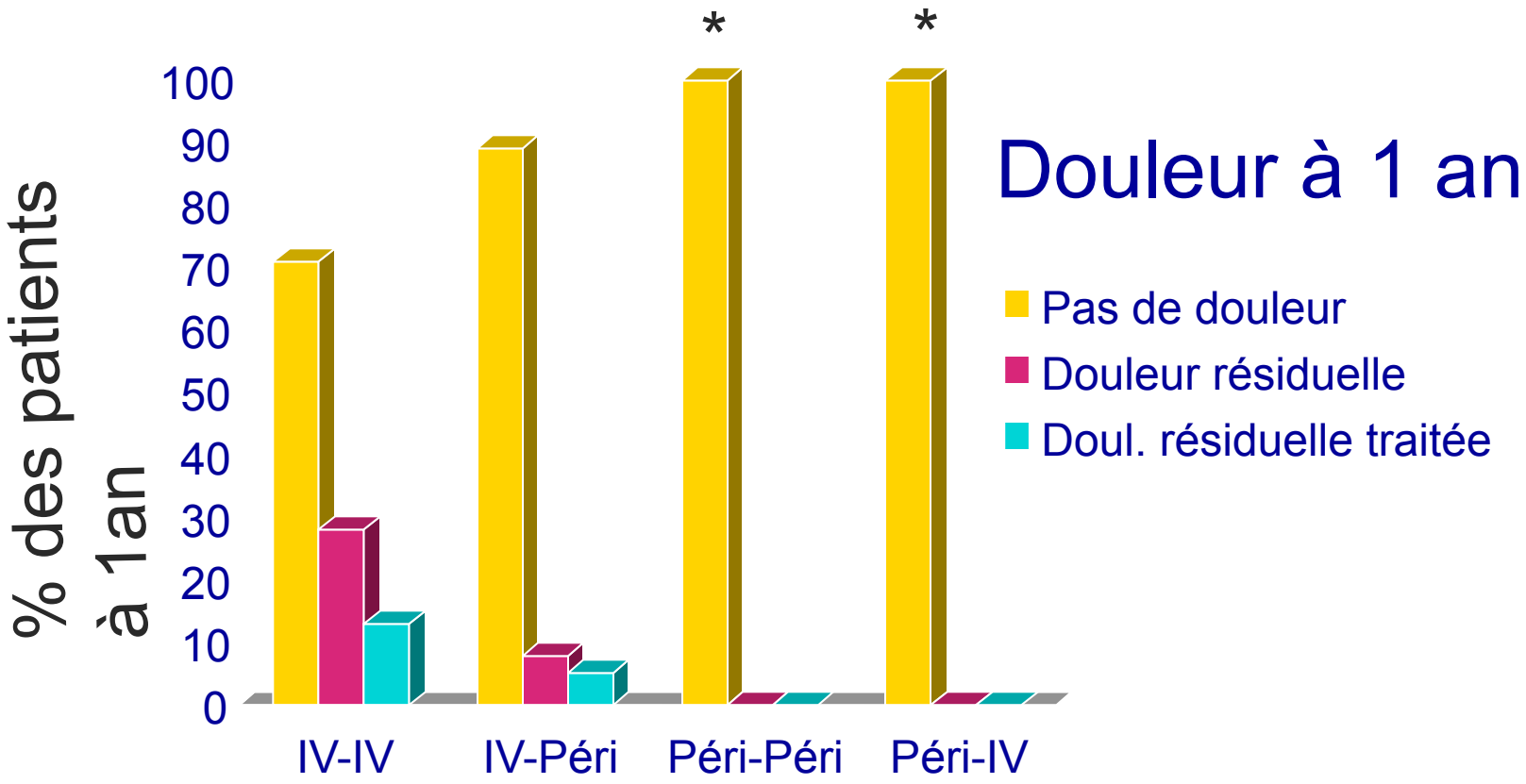
Chirurgie Abdominale
Analgésie péridurale > PCA



4 groupes: IV-IV, IV-Péri, Péri-Péri, Péri-IV

Anesthesiology 2005; 103:681-3

Anesthesiology 2005; 103:813–20

Intraoperative Epidural Analgesia Combined with Ketamine Provides Effective Preventive Analgesia in Patients Undergoing Major Digestive Surgery

Patricia Lavand'homme, M.D., Ph.D., Marc De Kock, M.D., Ph.D.,† Hilde Waterloos, R.N.‡*

Chirurgie thoracique

Study or subgroup	Favours regional Events	Total	Conventional pain control Events	Total	Weight	OR IV, Random, 95% CI
1.1.1 Thoracotomy (epidural analgesia)						
Ju 2008	26	48	31	43	43.4%	0.46 [0.19, 1.10]
Lu 2008	9	62	12	28	31.4%	0.23 [0.08, 0.63]
Senturk 2002	25	46	18	23	25.2%	0.33 [0.10, 1.04]
Subtotal (95% CI)		156		94	100.0%	0.34 [0.19, 0.60]
Total events	60		61			
Heterogeneity: τ^2=0.00; χ^2=1.04, df=2 (P=0.59); I^2=0%						
Test for overall effect: Z=3.69 (P=0.0002)						
1.1.2 Breast cancer surgery (paravertebral block)						
Ibarra 2011	5	15	7	14	39.3%	0.50 [0.11, 2.24]
Kairaluoma 2006	5	30	12	30	60.7%	0.30 [0.09, 1.00]
Subtotal (95% CI)		45		44	100.0%	0.37 [0.14, 0.94]
Total events	10		19			
Heterogeneity: τ^2=0.00; χ^2=0.27, df=1 (P=0.60); I^2=0%						
Test for overall effect: Z=2.09 (P=0.04)						

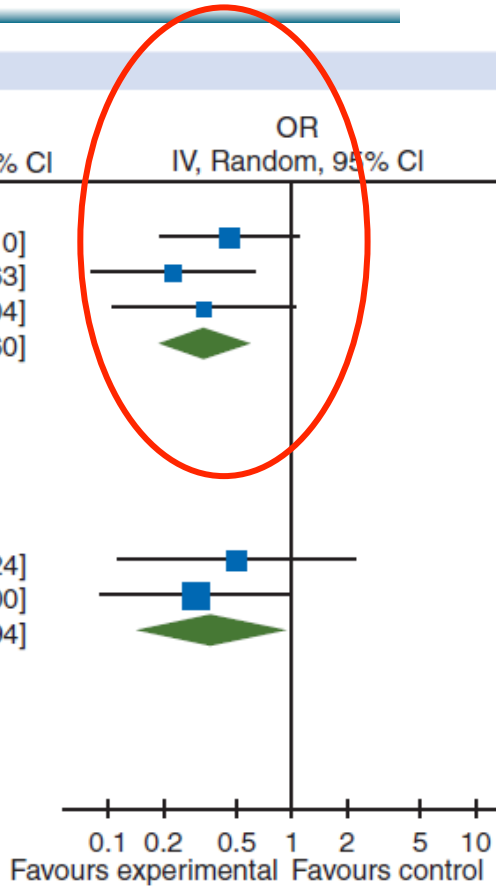


Fig 3 Forest plot: outcomes at 6 months favoured epidural anaesthesia for the prevention of PPP after thoracotomy with an OR of 0.3 0.20–0.56) and paravertebral block for breast cancer surgery with an OR of 0.37 (95% CI 0.14–0.94), respectively. More forest plots are elsewhere.[18]

Andreae MH, Andreae DA. Br J Anaesth. 2013 Jun 28.

Determinants of Long-Term Survival After Major Surgery and the Adverse Effect of Postoperative Complications

Shukri F. Khuri, MD,†‡ William G. Henderson, PhD,§ Ralph G. DePalma, MD,¶ Cecilia Mosca, MSPH,§ Nancy A. Healey, BS,* Dharam J. Kumbhani, MD, SM,* and the Participants in the VA National Surgical Quality Improvement Program*

Annals of Surgery • Volume 242, Number 3, September 2005

TABLE 4. Mortality of Patients With and Without Complications, All Operations Combined

	30 Days				1 Year		5 Years	
	With		Without		With	Without	With	Without
Type of Complication	n	Percent	n	Percent	Percent	Percent	Percent	Percent
Any complication	19,20888	13.3	86,743	0.8	28.1	6.9	57.6	39.5
Cardiac	2148	57.9	103,803	1.9	70.5	9.5	85.2	41.9
Arrest	1392	79.7	104,559	2.0	88.9	9.7	94.9	42.1
MI	952	30.8	104,999	2.8	47.5	10.4	73.1	42.5
Neural	1289	24.9	104,662	2.8	44.6	10.3	65.1	42.5
Coma	280	67.5	105,669	2.9	91.8	10.5	96.4	42.6
CVA	741	20.1	105,209	3.0	40.9	10.5	64.6	42.6
Peripheral nerve injury	430	13.0	105,520	3.0	30.0	10.6	50.2	42.7
Renal	1240	39.5	104,711	2.6	62.9	10.1	80.7	42.3
Insufficiency	702	36.2	105,249	2.8	58.6	10.4	78.8	42.5
Failure	595	44.5	105,356	2.8	69.8	10.4	83.2	42.6
Pulmonary	5704	22.0	100,247	2.0	45.9	8.7	71.4	41.1
Failure to wean	3150	29.1	102,801	2.3	55.9	9.3	77.5	41.7
Pneumonia	3936	18.0	102,015	2.5	42.8	9.5	69.4	41.7

ABLE 5. Mortality of Patients With and Without Complications

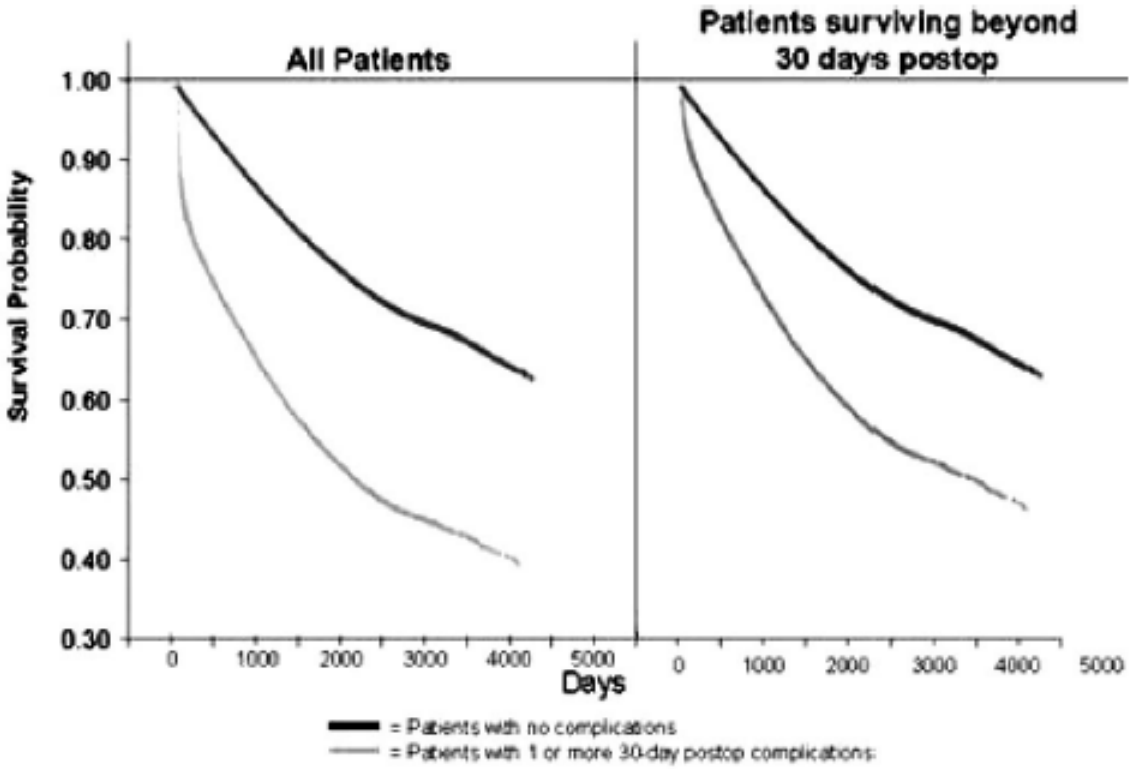
Operation	Top 10 Complications in Order of Decreasing Frequency	30 Days				1 Year		5 Years	
		With		Without		With	Without	With	Without
		n	Percent	n	Percent	Percent	Percent	Percent	Percent
Colectomy	*ANY COMPLICATION*	5795	17.3	14,100	2.0	35.9	12.1	65.2	47.7
	Pneumonia	1179	23.3	18,716	5.4	52.2	16.9	76.3	51.3
	Failure to wean	1153	35.5	18,742	4.7	66.2	16.1	84.3	50.8
	Urinary tract infection	958	9.4	18,937	6.4	33.6	18.3	66.7	52.1
	Superficial wound infection	938	4.9	18,957	6.6	18.0	19.1*	56.5	52.6
	Systemic sepsis	722	37.7	19,173	5.3	63.2	17.4	81.3	51.7
	Deep wound infection	703	11.1	19,192	6.3	32.9	18.5	62.3	52.4
	Cardiac arrest	408	84.8	19,487	4.8	92.4	17.5	96.8	51.8
	Renal insufficiency	235	43.8	19,660	6.0	68.1	18.4	84.7	52.4
	Myocardial infarction	190	40.0	19,705	6.2	58.4	18.6	81.0	52.5
	Renal failure	172	54.1	19,723	6.1	77.9	18.5	90.1	52.4

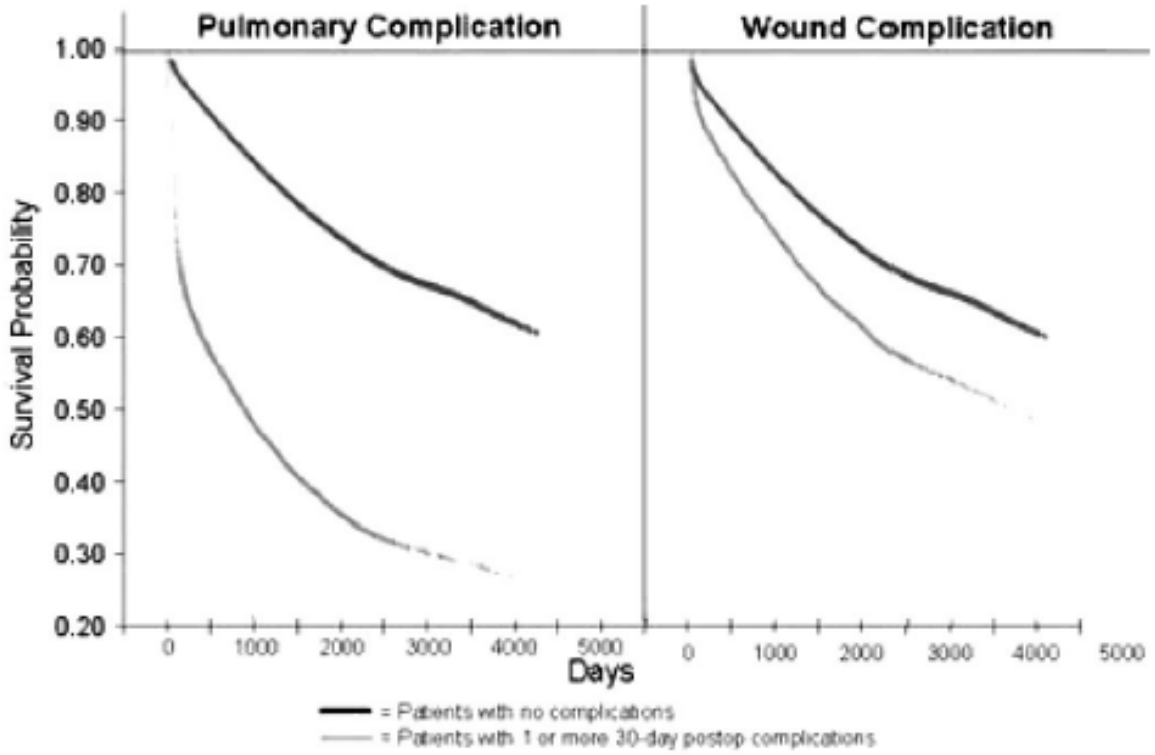
Chirurgie et mortalité

Determinants of Long-Term Survival After Major Surgery and the Adverse Effect of Postoperative Complications

Shukri F. Khuri, MD,†‡ William G. Henderson, PhD,§ Ralph G. DePalma, MD,¶ Cecilia Mosca, MSPH,§ Nancy A. Healey, BS,* Dharam J. Kumbhani, MD, SM,* and the Participants in the VA National Surgical Quality Improvement Program*

Annals of Surgery • Volume 242, Number 3, September 2005





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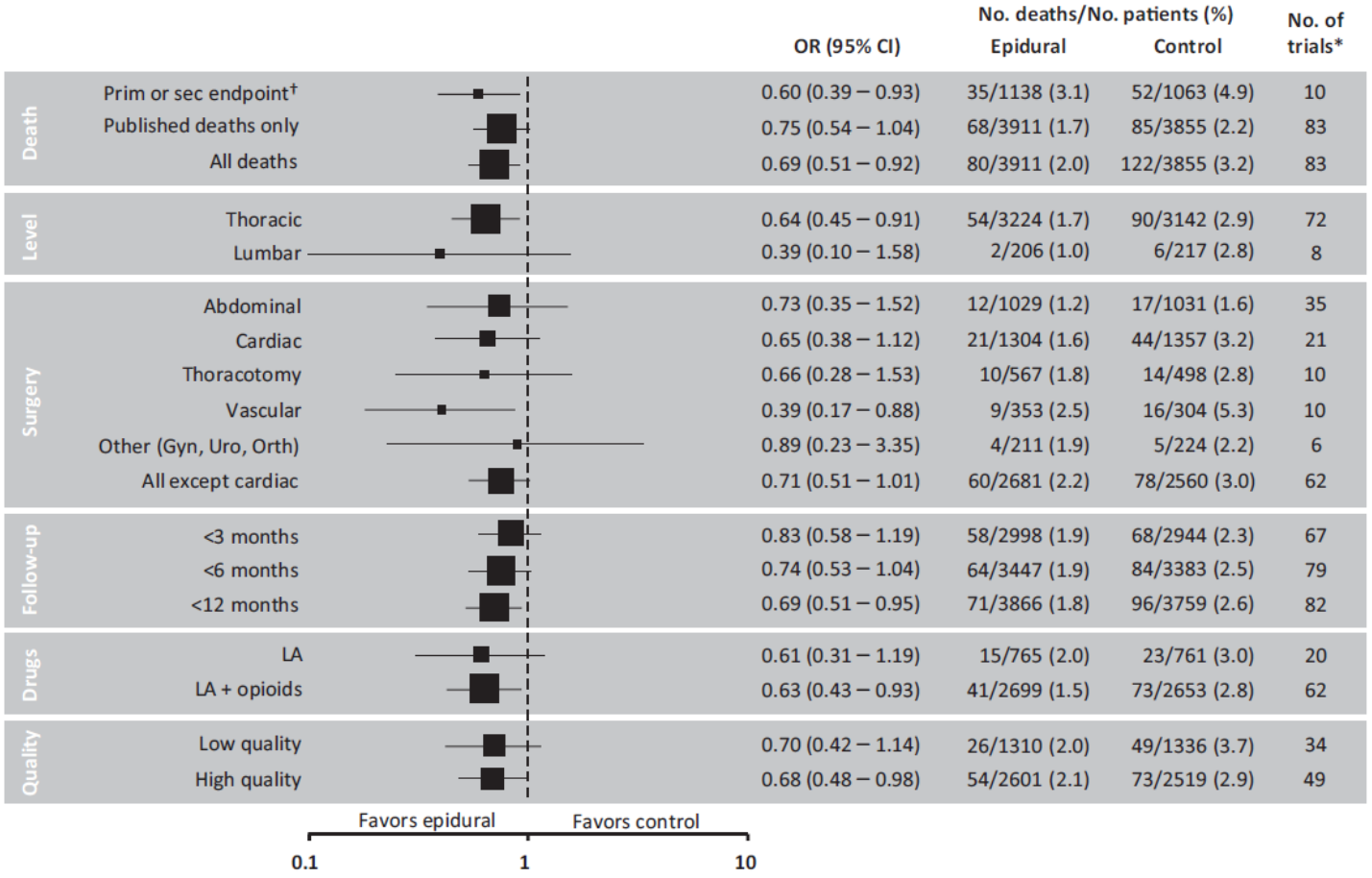
Annals of Surgery • Volume 00, Number 00, 2013

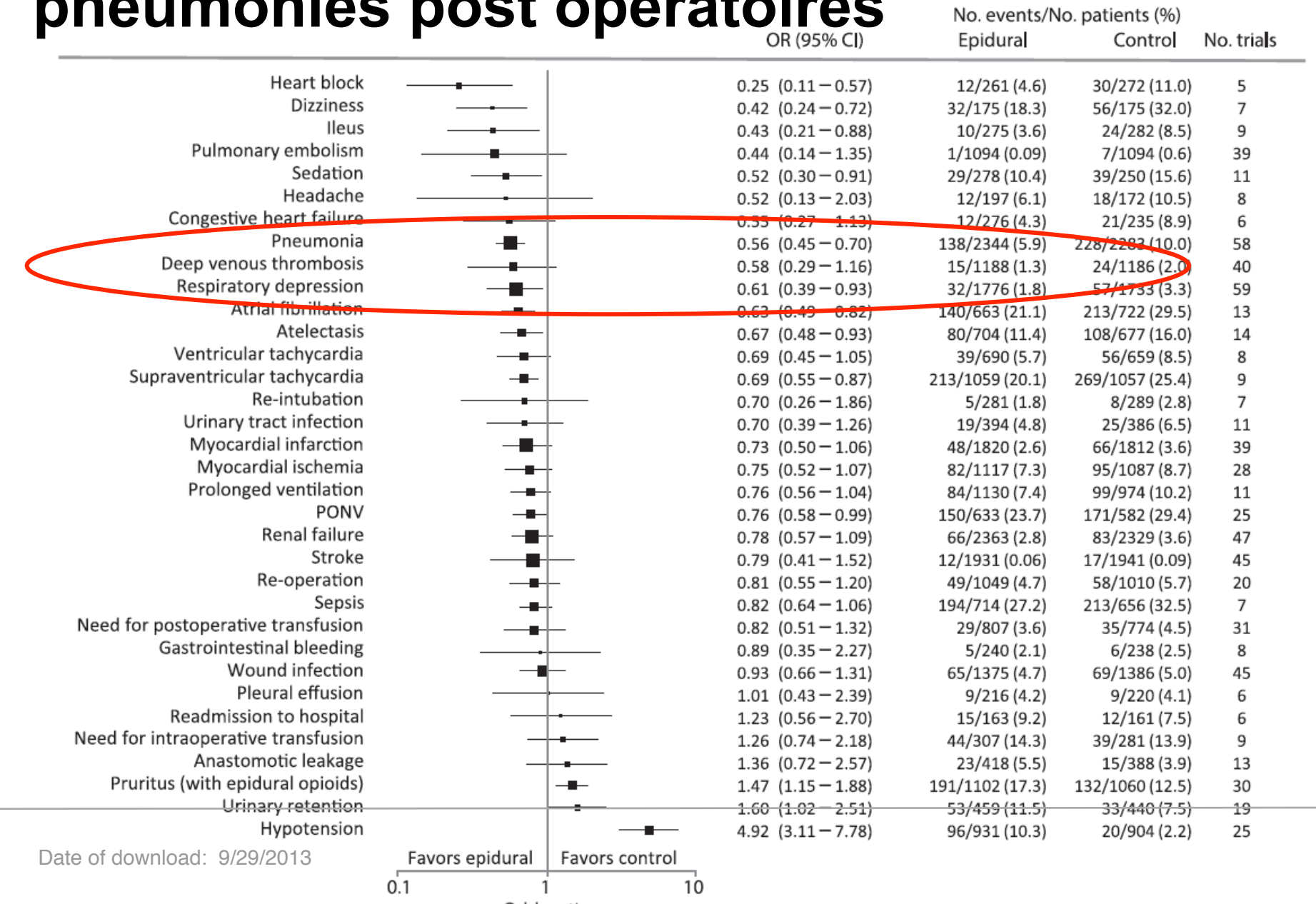
Impact of Epidural Analgesia on Mortality and Morbidity After Surgery

Systematic Review and Meta-analysis of Randomized Controlled Trials

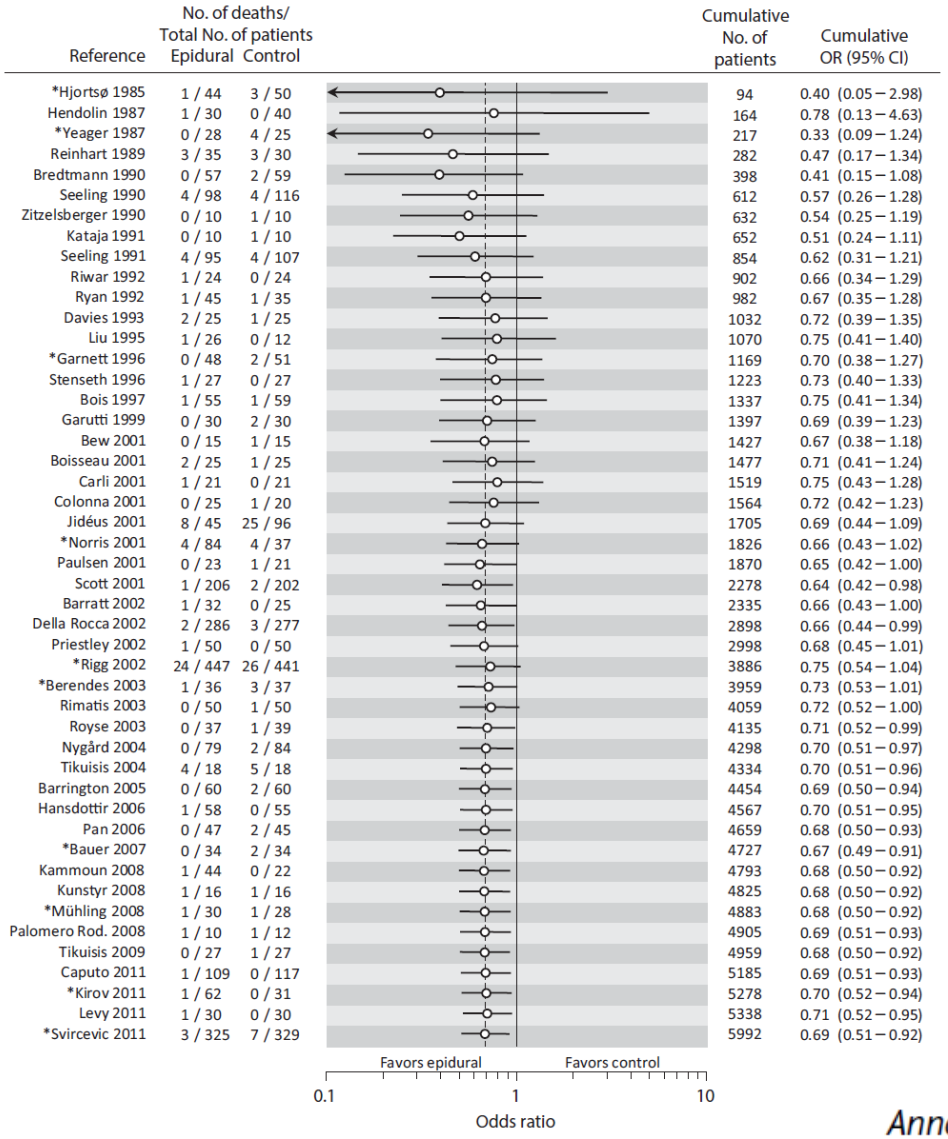
Daniel M. Pöpping, MD, Nadia Elia, MD, MSc,† Hugo K. Van Aken, MD,* Emmanuel Marret, MD,‡ Stephan A. Schug, MD,§ Peter Kranke, MD, MBA,¶ Manuel Wenk, MD,* and Martin R. Tramèr, MD, DPhil‖*



Effet protecteur de la péridurale sur les pneumonies post opératoires



Effet protecteur de la péridurale sur la mortalité post opératoire



Sur 60 bénéficiaires d'une APD, une vie sauvée

Annals of Surgery • Volume 00, Number 00, 2013

APD et rôle sur la mortalité péri opératoire

Epidural anaesthesia and survival after intermediate-to-high risk non-cardiac surgery: a population-based cohort study

Duminda N Wijeysundera, W Scott Beattie, Peter C Austin, Janet E Hux, Andreas Laupacis

www.thelancet.com Vol 372 August 16, 2008

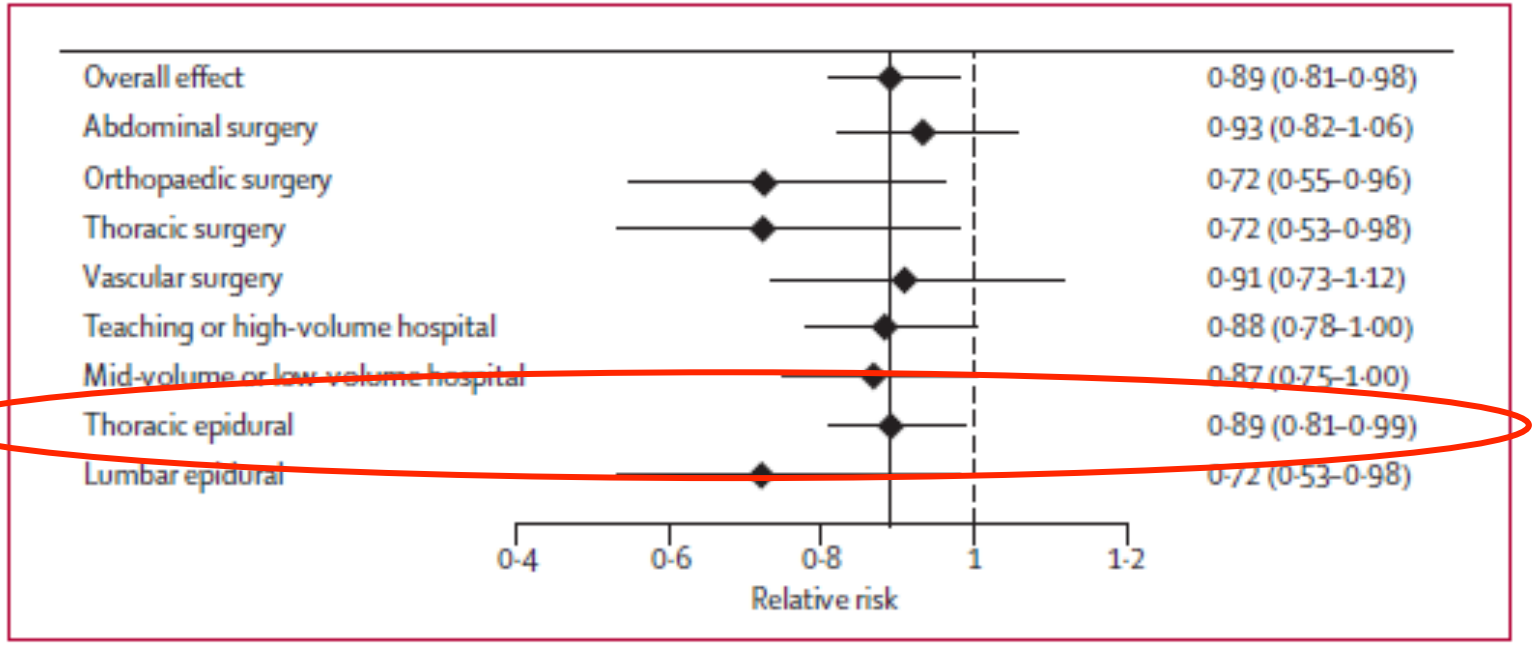


Figure 2: Association of epidural anaesthesia or analgesia with 30-day mortality in the subgroup analyses

Epidural Analgesia Is Associated with Improved Health Outcomes of Surgical Patients with Chronic Obstructive Pulmonary Disease

Felix van Lier, M.D., Ph.D.,* Patrick J. van der Geest, M.D.,† Sanne E. Hoeks, Ph.D.,‡ Yvette R. B. M. van Gestel, Ph.D.,‡ Jaap W. Hol, M.D.,† Don D. Sin, M.D., F.C.C.P.,§ Robert Jan Stolker, M.D., Ph.D.,‖ Don Poldermans, M.D., Ph.D.‖

Anesthesiology 2011; 115:315–21

Table 2. Spirometric Values of the Study Cohort

	Epidural N = 324	No Epidural N = 217	*P* Value
Entire cohort			
FEV_1/VC (%)	59	59	0.37
VC (liters)	3.90	3.27	<0.001
Mild COPD			
FEV_1/VC (%)	64	64	0.41
VC (liters)	4.26	4.11	0.06
Moderate COPD			
FEV_1/VC (%)	54	58	0.04
VC (liters)	3.72	3.39	0.10
Severe COPD			
FEV_1/VC (%)	39	43	0.003
VC (liters)	3.2	2.6	0.009

Table 3. Primary Endpoints among the Study Cohort

	Epidural N (%) 324	No Epidural N (%) 217	*P* Value
Postoperative pneumonia*	33 (11)	35 (16)	0.08
30-day mortality	15 (5)	20 (9)	0.03

Effect of epidural analgesia on postoperative complications following pancreaticoduodenectomy

The American Journal of Surgery (2012) 204, 1000–1006

Albert Amini, M.D.[a,*], Asad E. Patanwala, Pharm.D.[b], Felipe B. Maegawa, M.D.[a], Grant H. Skrepnek, Ph.D.[b], Tun Jie, M.D.[a], Rainer W. Gruessner, M.D.[a], Evan S. Ong, M.D.[a]

Table 2 Complications by epidural group

Complication	Epidural	No epidural	*P*
Complications of surgical procedures	36.1%*	41.1%*	.004
Intestinal obstruction	14.7%	17.4%	.054
Other circulatory disease	8.9%	10.6%	.068
Acute and unspecified renal failure	5.2%*	9.0%*	<.001
Pneumonia	3.7%*	7.8%*	<.001
Thromboembolism	9.4%*	6.2%*	<.001
Shock	2.6%	3.4%	.179
Acute myocardial infarrtion	.5%*	1.3%*	.040
Digestive system complications	16.2%	17.4%	.352
Postoperative infection	10.5%	11.4%	.068
External or internal disruption of surgical wound	2.6%*	1.7%*	.032
Death	2.1%*	5.0%*	<.001

*Statistically significant at $P < .05$ (unadjusted).

Table 4 Generalized linear models

Predictor variable	exp(*b*)	95% CI	*P*
Negative binomial regression (outcome variable: length of hospital stay)			
Total complications	1.21	1.15–1.27	<.001
Epidural	.87	.78–.96	.007
Gender (female)	1.00	.95–1.06	.946
Age	1.00	1.00–1.00	.633
Number of procedures	1.09	1.08–1.11	<.001
Number of diagnoses	1.02	1.01–1.02	<.001
Gamma regression (outcome variable: total charges)			
Total complications	1.21	1.11–1.31	<.001
Epidural	.78	.69–.87	<.001
Gender (female)	.96	.91–1.02	.214
Age	1.00	1.00–1.00	.764
Number of procedures	1.09	1.08–1.11	<.001
Number of diagnoses	1.02	1.00–1.03	.010

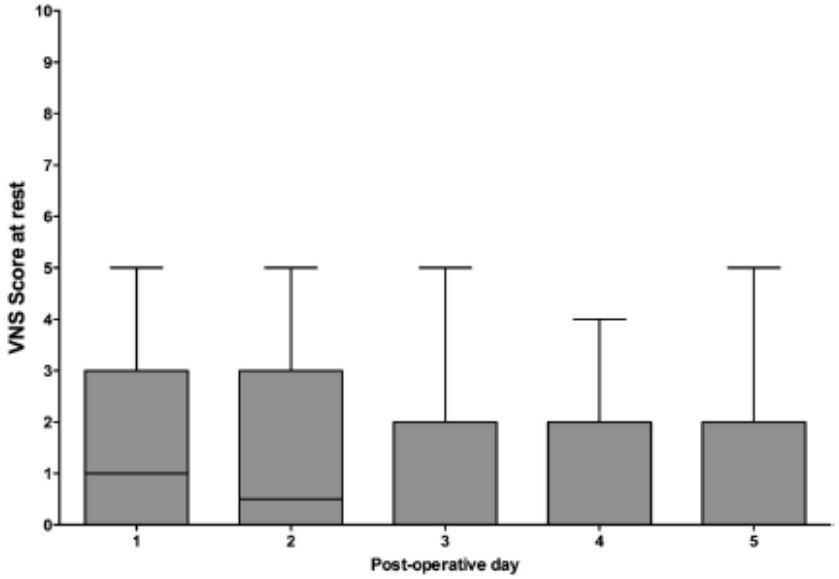
The multivariate negative binomial regression controlled for hospital bed size, hospital location, hospital region, hospital teaching status, income quartile, patient location by county, primary payer, and Deyo-Charlson comorbidity index.

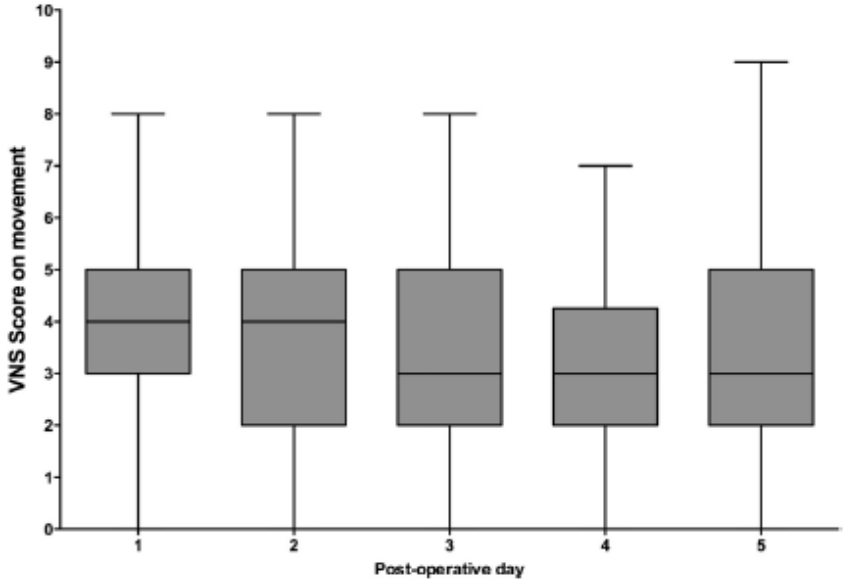
Epidural analgesia for cytoreductive surgery with peritonectomy and heated intraperitoneal chemotherapy

International Journal of Surgery 16 (2015) 99–106

Federico Piccioni [a, *], Claudia Casiraghi [b], Luca Fumagalli [a], Shigeki Kusamura [c], Dario Baratti [c], Marcello Deraco [c], Flavio Arienti [d], Martin Langer [a, e]

[a] *Department of Anesthesia, Intensive Care and Palliative Care, Fondazione IRCCS Istituto Nazionale dei Tumori, Via Venezian 1, Milan, 20080, Italy*
[b] *School of Anesthesia and Intensive Care, University of Milan, Via Festa del Perdono 7, Milan, 20122, Italy*
[c] *Colorectal Cancer Unit-Department of Surgery, Fondazione IRCCS Istituto Nazionale dei Tumori, Via Venezian 1, Milan, 20080, Italy*
[d] *Immunohematology Unit, Fondazione IRCCS Istituto Nazionale dei Tumori, Via Venezian 1, Milan, 20080, Italy*
[e] *Department of Pathophysiology and Transplantation, University of Milan, Via Festa del Perdono 7, Milan, 20122, Italy*





Comparison of pain management after laparoscopic distal gastrectomy with and without epidural analgesia

Yoshitomo Yanagimoto[1] · Shuji Takiguchi[1] · Yasuhiro Miyazaki[1] · Jota Mikami[1] · Tomoki Makino[1] · Tsuyoshi Takahashi[1] · Yukinori Kurokawa[1] · Makoto Yamasaki[1] · Hiroshi Miyata[1] · Kiyokazu Nakajima[1] · Masaki Mori[1] · Yuichiro Doki[1]

Surg Today
DOI 10.1007/s00595-015-1162-

Table 2 Comparison of the postoperative outcomes of patients treated with (Epidural) or without (No epidural) epidural anesthesia after laparoscopy-assisted distal gastrectomy

Postoperative outcome[a]	Epidural group ($n = 34$)	No epidural group ($n = 50$)	p value
First day of ambulation	1.0 ± 0.2	1.0 ± 0.0	0.225
First day of flatus	2.1 ± 0.5	2.4 ± 0.8	0.045
First day of oral intake	5.4 ± 6.2	4.5 ± 3.5	0.655
Length of postoperative hospital stay (days)	17.0 ± 9.2	16.9 ± 12.4	0.120
Number of additional doses of analgesics	2.9 ± 2.3	4.9 ± 3.7	0.007

Table 3 Adverse events related to anesthesia for patients treated with (Epidural) or without (No epidural) epidural anesthesia after laparoscopy-assisted distal gastrectomy

Adverse event[a]	Epidural group ($n = 34$)	No epidural group ($n = 50$)	p value
Nausea	11 (32.4)	12 (24.5)	0.431
Vomiting	0 (0.0)	0 (0.0)	–
Hypotension	2 (5.9)	0 (0.0)	0.083
Bradycardia	1 (2.9)	0 (0.0)	0.223
Urinary retention	7 (20.6)	0 (0.0)	<0.001

Improved peri-operative outcomes with epidural analgesia in patients undergoing a pancreatectomy: a nationwide analysis

Dominic E. Sanford[1], William G. Hawkins[1,2] & Ryan C. Fields[1,2]

[1]Department of Surgery, Barnes-Jewish Hospital and Washington University School of Medicine, and [2]Alvin J. Siteman Cancer Center, Washington University School of Medicine, Saint Louis, MO, USA

Table 5 Post-operative outcomes after pancreatectomy of propensity score matched patients with and without epidural analgesia

Outcome	Mean (SD) or No. (Column %)		*P*-value
	No epidural (*n* = 1070)	Epidural (*n* = 1070)	
Postoperative length of stay, days	12.1 (10.8)	11.0 (10.4)	0.011
Total hospital charges, $	128 939 (127 783)	112 086 (110 782)	0.001
Inpatient mortality	38 (3.6%)	16 (1.5%)	0.002
Any complication	468 (43.7%)	466 (43.6%)	0.931
Myocardial infarction	12 (1.1%)	11 (1.0%)	0.834
Hypotension/Shock	25 (2.3%)	13 (1.2%)	0.050
Pneumonia/Respiratory failure	97 (9.1%)	71 (6.6%)	0.037
Gastroparesis/Nausea & vomiting	96 (9.0%)	108 (10.1%)	0.377
Total parenteral nutrition	133 (12.4%)	113 (10.6%)	0.175
Acute renal failure	58 (5.4%)	36 (3.4%)	0.020
Urinary tract infection	80 (7.5%)	82 (7.7%)	0.870
Surgical site infection	117 (10.9%)	128 (12.0%)	0.455
Blood transfusions	267 (25.0%)	242 (22.6%)	0.204
DVT/PE	22 (2.1%)	32 (3.0%)	0.168

L’anesthésie péridurale a des challengers!

Chirurgie mini invasive

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L’anesthésie péridurale a des challengers!

BPV

KT pericicatriciel

TAP bloc

AL intraveineux

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A comparison of the analgesic efficacy and side-effects of paravertebral *vs* epidural blockade for thoracotomy—a systematic review and meta-analysis of randomized trials

R. G. Davies[1], P. S. Myles[1 2 3]* and J. M. Graham[4]

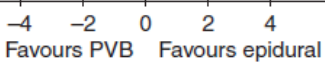
British Journal of Anaesthesia 96 (4): 418–26 (2006)

At 24 h

Review: Paravertebral block
Comparison: 02 VAS 24 h
Outcome: 01 VAS at 24 h

Study or sub-category	N	PVB mean (SD)	N	Epidural mean (SD)	WMD (random) 95% CI	Weight %	WMD (random) 95% CI
De Cosmo *et al.*[8]	25	3.60 (1.00)	25	3.70 (2.50)		13.29	–0.10 (–1.16, 0.96)
Luketich *et al.*[28]	47	2.60 (1.50)	44	2.40 (1.50)		17.41	0.20 (–0.42, 0.82)
Mathews *et al.*[30]	7	0.60 (0.60)	9	1.20 (0.80)		16.77	–0.60 (–1.29, 0.09)
Perttunen *et al.*[35]	15	7.00 (1.60)	15	6.80 (2.00)		11.24	0.20 (–1.10, 1.50)
Kaiser *et al.*[17]	13	4.00 (5.28)	13	4.25 (4.73)		2.45	–0.25 (–4.10, 3.60)
Bimston *et al.*[3]	30	3.30 (1.90)	20	1.30 (1.90)		13.11	2.00 (0.92, 3.08)
Richardson *et al.*[38]	46	1.50 (1.50)	49	2.38 (2.06)		16.44	–0.88 (–1.60, –0.16)
Leaver *et al.*[24]	14	4.07 (1.82)	15	4.13 (2.45)		9.30	–0.06 (–1.62, 1.50)
Total (95% CI)	197		190			100.00	0.05 (–0.59, 0.69)

Test for heterogeneity: χ^2=22.29, df=6 (P=0.002), I^2=68.6%
Test for overall effect: Z=0.15 (P=0.88)

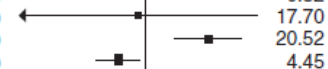


At 48 h

Review: Paravertebral block
Comparison: 03 VAS 48 h
Outcome: 01 VAS at 48 h

Study or sub-category	N	PVB Mmean (SD)	N	Epidural mean (SD)	WMD (fixed) 95% CI	Weight %	WMD (fixed) 95% CI
De Cosmo *et al.*[8]	25	3.40 (1.00)	25	3.00 (1.40)		22.49	0.40 (–0.25, 1.05)
Luketich *et al.*[28]	47	2.40 (1.60)	44	2.30 (1.20)		28.58	0.10 (–0.48, 0.68)
Perttunen *et al.*[35]	15	5.80 (1.75)	15	5.40 (1.95)		5.45	0.40 (–0.93, 1.73)
Kaiser *et al.*[17]	13	3.75 (4.45)	13	5.63 (4.45)		0.82	–1.88 (–5.30, 1.54)
Bimston*et al.*[3]	30	1.20 (1.30)	20	1.80 (1.30)		17.70	–0.60 (–1.34, 0.14)
Richardson*et al.*[38]	46	1.00 (2.03)	49	1.25 (1.25)		20.52	0.25 (–0.93, 0.43)
Leaver *et al.*[26]	14	4.00 (1.95)	15	4.16 (2.08)		4.45	–0.16 (–1.63, 1.31)
Total (95% CI)	190		181			100.00	–0.04 (–0.35, 0.27)

Test for heterogeneity: χ^2=6.12, df=6 (P=0.41), I^2=2.0%
Test for overall effect: Z=0.25 (P=0.80)



ig 3 A meta-analysis of trials comparing PVB with epidural analgesia on pain visual analogue scale scores.

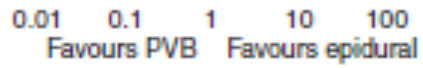
Péridurale versus Bloc paravertébral

Urinary retention

Review: Paravertebral block
Comparison: 11 Urinary retention
Outcome: 01 Urinary retention

Study or sub-category	PVB n/N	Epidural n/N	OR (fixed) 95% CI	Weight %	OR (fixed) 95% CI
Mathews *et al.*[30]	1/10	6/9		21.54	0.06 (0.00, 0.67)
Bimston *et al.*[3]	0/30	6/20		28.89	0.04 (0.00, 0.69)
Richardson *et al.*[36]	5/46	11/49		35.98	0.42 (0.13, 1.32)
Leaver *et al.*[24]	10/14	13/15		13.59	0.38 (0.06, 2.54)
Total (95% CI)	100	93		100.00	0.23 (0.10, 0.51)

Total events: 16 (PVB), 36 (Epidural)
Test for heterogeneity: χ^2=4.13, df=3 (P=0.25), I^2=27.4%
Test for overall effect: Z=3.54 (P=0.0004)



BPV moins d'effets secondaires urinaires

Centre Léon Bérard
LYON ET RHÔNE-ALPES

British Journal of Anaesthesia **96** (4): 418–26 (2006)

Péridurale versus Bloc paravertébral

Review: Paravertebral block
Comparison: 07 failed technique
Outcome: 01 Inadequate block

Study or sub-category	PVB n/N	Epidural n/N	OR (fixed) 95% CI	Weight %	OR (fixed) 95% CI
Luketich *et al.*[28]	4/47	9/44		34.86	0.36 (0.10, 1.27)
Perttunen *et al.*[35]	0/17	2/19		9.44	0.20 (0.01, 4.47)
Kaiser *et al.*[17]	2/15	2/15		7.10	1.00 (0.12, 8.21)
Richardson *et al.*[38]	0/46	5/54		20.55	0.10 (0.01, 1.80)
Dhole *et al.*[10]	0/20	1/20		6.00	0.32 (0.01, 8.26)
Leaver *et al.*[24]	1/14	6/15		22.05	0.12 (0.02, 1.13)
Total (95% CI)	159	167		100.00	0.28 (0.12, 0.64)

Total events: 7 (PVB), 25 (Epidural)
Test for heterogeneity: χ^2=2.70, df=5 (P=0.75), I^2=0%
Test for overall effect: Z=3.04 (P=0.002)

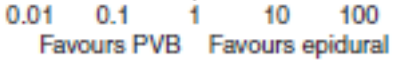


Fig 5 A meta-analysis of trials comparing PVB with epidural analgesia on regional block failure.

BPV plus d'échec de la technique

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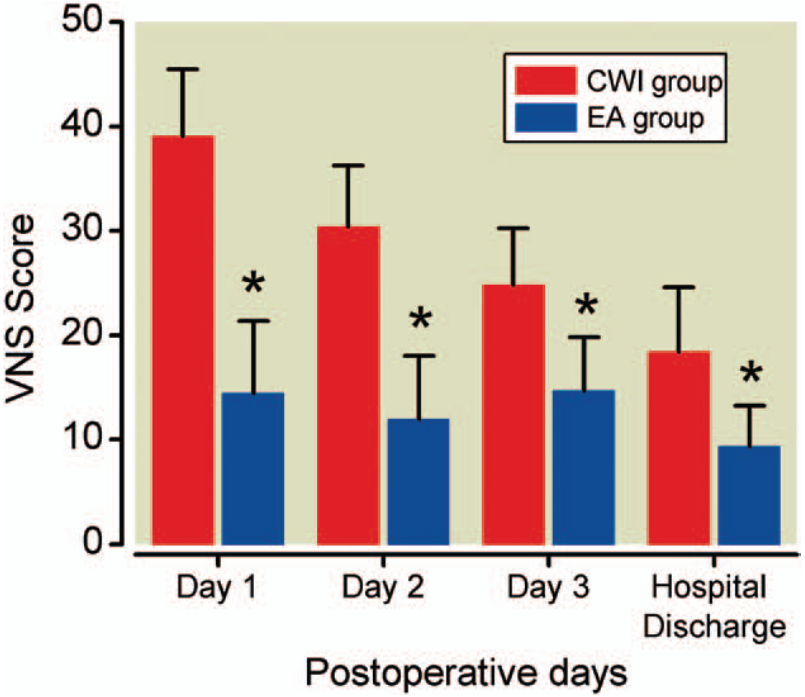
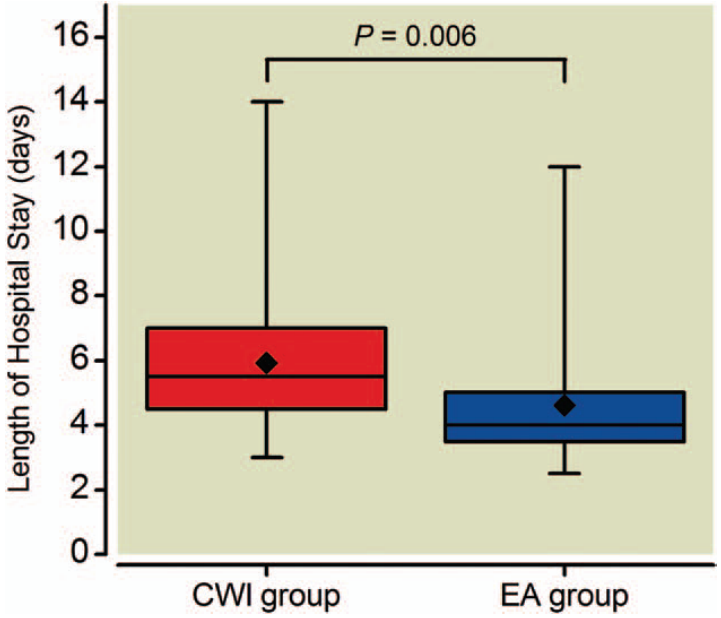
British Journal of Anaesthesia **96** (4): 418–26 (2006)

Péridurale versus Infiltration continue: chirurgie colorectale





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Jouve P, Anesthesiology. 2013 Mar;118(3):622-30.

La Xylo IV

Diminuer l’iléus post opératoire

Lidocaïne IV

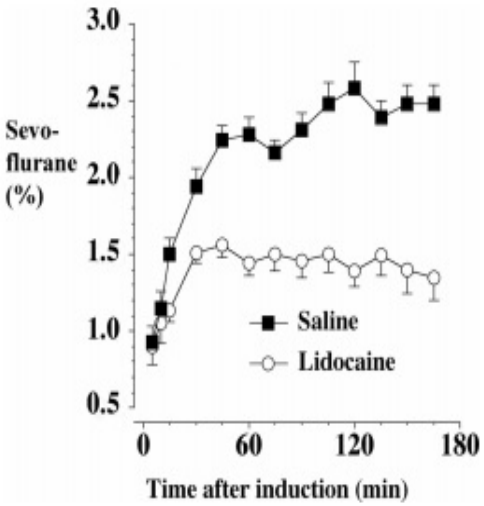

Fig. 1. End-tidal concentration of sevoflurane in 40 patients during laparoscopic colectomy.

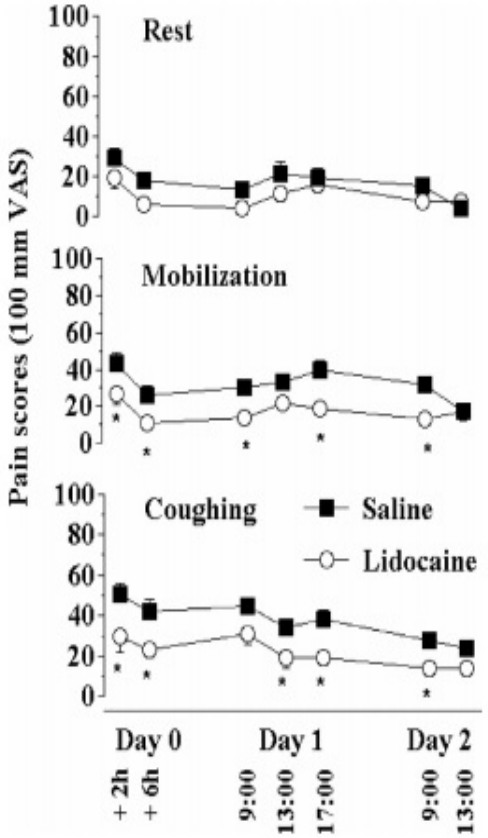

Fig. 2. Self-reported pain scores at 2 and 6 h after surgery, at 9 AM, 1 PM, and 5 PM on the first day after surgery, and at 9 AM and 1 PM on the second day after surgery.

McCarthy, Drugs, 2010

Lidocaïne IV

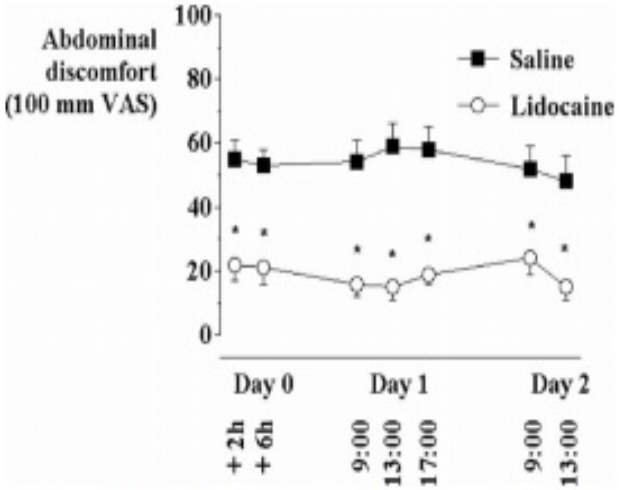

Fig. 3. Self-reported abdominal comfort scores at 2 and 6 h after surgery, at 9 AM, 1 PM, and 5 PM on the first day after surgery, and at 9 AM and 1 PM on the second day after surgery. Abdominal discomfort was reported on a 100-mm visual analog scale (VAS), with 0 mm being no discomfort and 100 mm being the worst imaginable discomfort. * $P < 0.05$ as compared with saline.

Table 3. Bowel Function and Duration of Hospitalization

	Saline	Lidocaine	*P* Value
First Flatus (hours)	28 [25–33]	17 [11–24]	< 0.001
Defecation (hours)	51 [41–70]	28 [24–37]	0.001
Hospital stay (days)	3 [3–4]	2 [2–3]	0.001

Data are presented as median [25–75% interquartile range].

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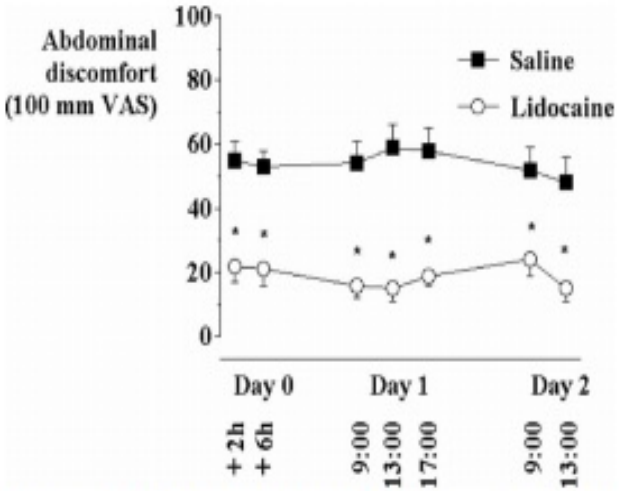
McCarthy, Drugs, 2010

Lidocaïne IV



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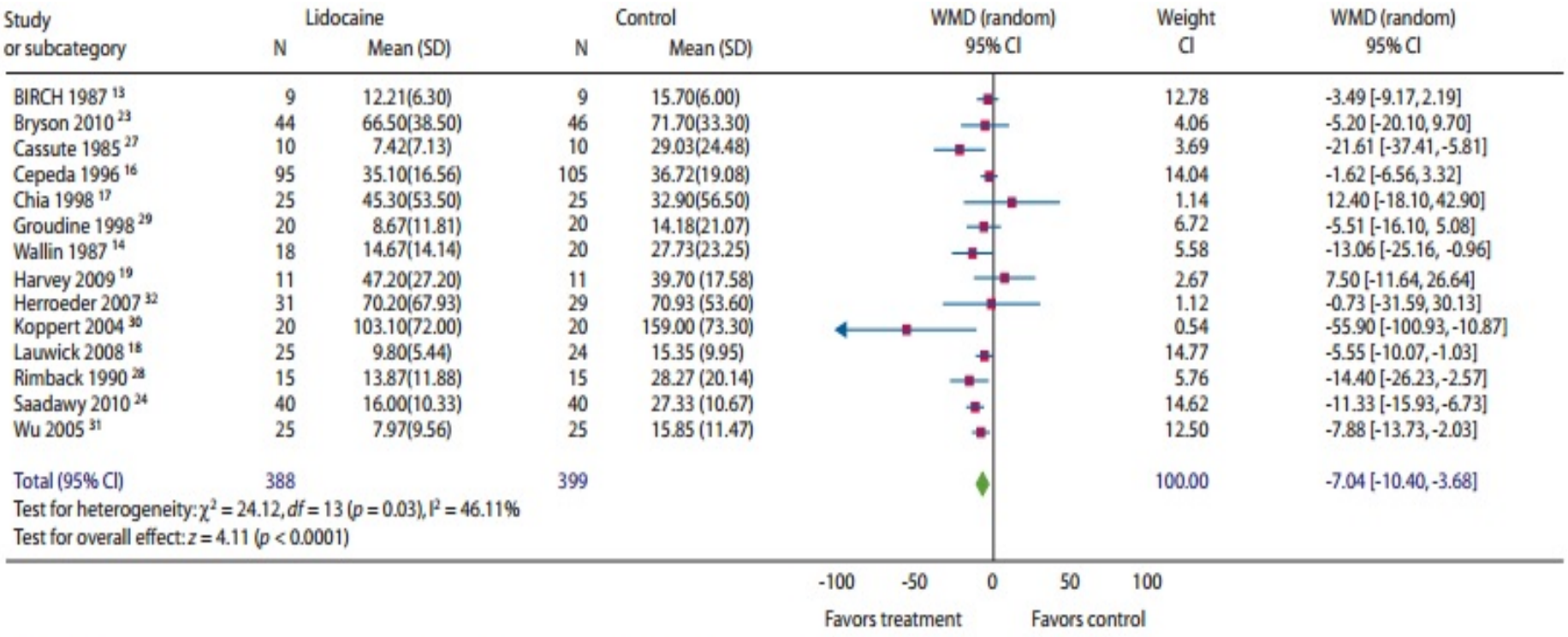
Lidocaïne IV



Study or subcategory	Lidocaine N	Lidocaine Mean (SD)	Control N	Control Mean (SD)	WMD (random) 95% CI	Weight CI	WMD (random) 95% CI
BIRCH 1987 [13]	9	12.21(6.30)	9	15.70(6.00)		12.78	-3.49 [-9.17, 2.19]
Bryson 2010 [23]	44	66.50(38.50)	46	71.70(33.30)		4.06	-5.20 [-20.10, 9.70]
Cassute 1985 [27]	10	7.42(7.13)	10	29.03(24.48)		3.69	-21.61 [-37.41, -5.81]
Cepeda 1996 [16]	95	35.10(16.56)	105	36.72(19.08)		14.04	-1.62 [-6.56, 3.32]
Chia 1998 [17]	25	45.30(53.50)	25	32.90(56.50)		1.14	12.40 [-18.10, 42.90]
Groudine 1998 [29]	20	8.67(11.81)	20	14.18(21.07)		6.72	-5.51 [-16.10, 5.08]
Wallin 1987 [14]	18	14.67(14.14)	20	27.73(23.25)		5.58	-13.06 [-25.16, -0.96]
Harvey 2009 [19]	11	47.20(27.20)	11	39.70 (17.58)		2.67	7.50 [-11.64, 26.64]
Herroeder 2007 [32]	31	70.20(67.93)	29	70.93 (53.60)		1.12	-0.73 [-31.59, 30.13]
Koppert 2004 [30]	20	103.10(72.00)	20	159.00 (73.30)		0.54	-55.90 [-100.93, -10.87]
Lauwick 2008 [18]	25	9.80(5.44)	24	15.35 (9.95)		14.77	-5.55 [-10.07, -1.03]
Rimback 1990 [28]	15	13.87(11.88)	15	28.27 (20.14)		5.76	-14.40 [-26.23, -2.57]
Saadawy 2010 [24]	40	16.00(10.33)	40	27.33 (10.67)		14.62	-11.33 [-15.93, -6.73]
Wu 2005 [31]	25	7.97(9.56)	25	15.85 (11.47)		12.50	-7.88 [-13.73, -2.03]
Total (95% CI)	388		399			100.00	-7.04 [-10.40, -3.68]

Test for heterogeneity: $\chi^2 = 24.12, df = 13\ (p = 0.03), I^2 = 46.11\%$

Test for overall effect: $z = 4.11\ (p < 0.0001)$

-100 -50 0 50 100

Favors treatment Favors control

FIGURE 2. Cumulative postoperative opioid consumption. WMD = weighted mean differences.

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Sun, Dis Colon Rectum, 2012

Lidocaïne IV

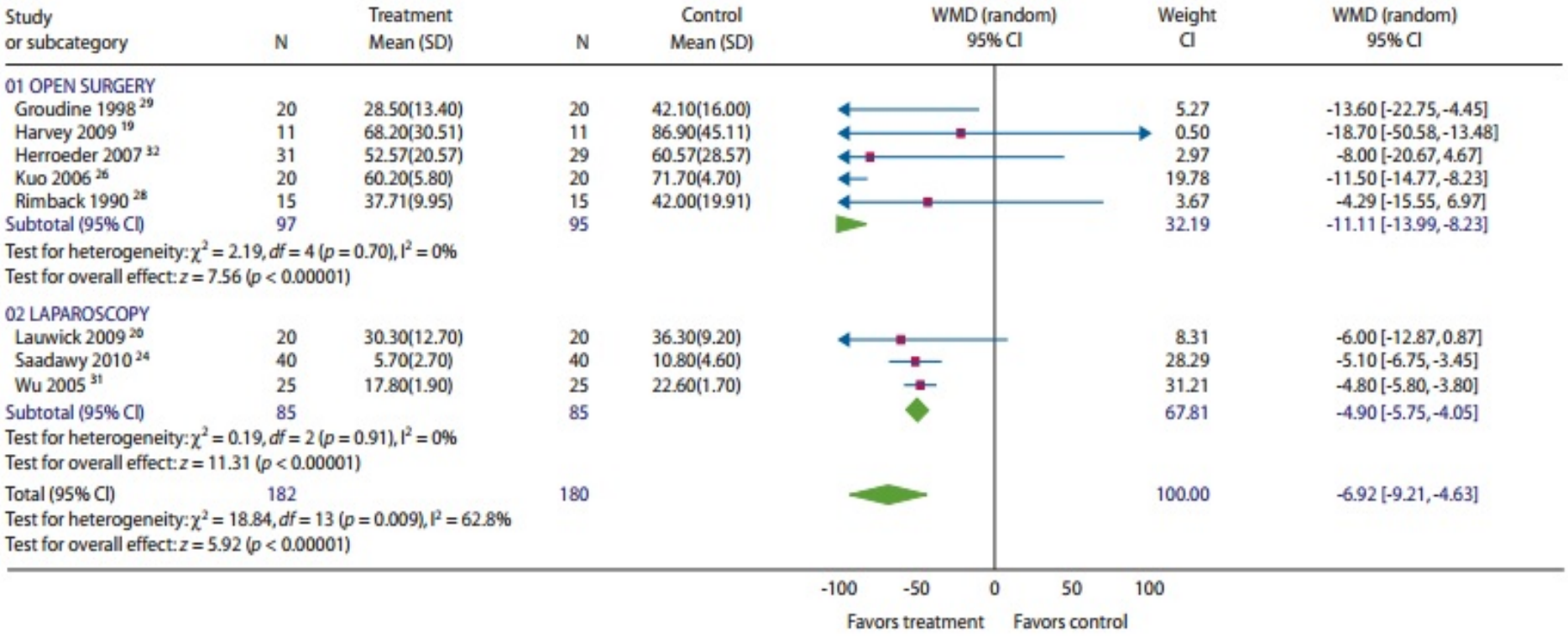

FIGURE 3. Time to first flatus. WMD = weighted mean differences .

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Sun, Dis Colon Rectum, 2012

Lidocaïne IV

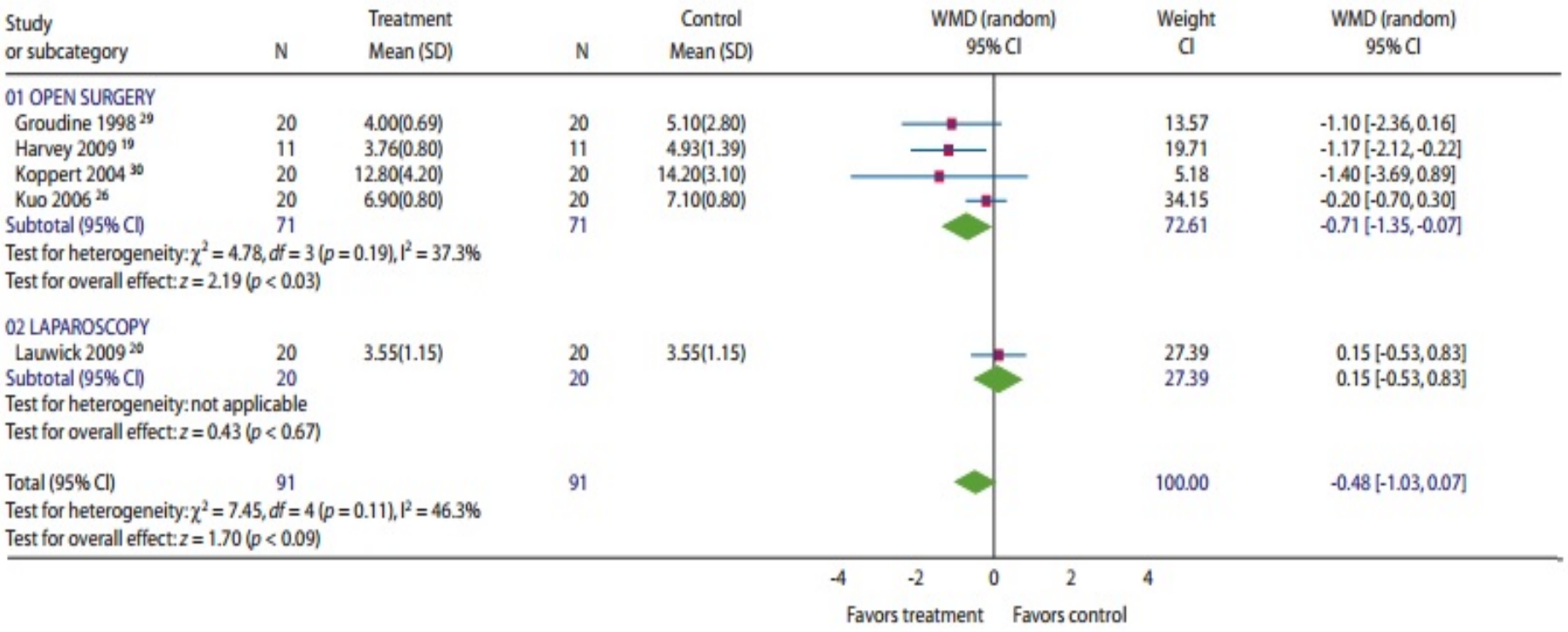

FIGURE 5. Length of hospital stay. WMD = weighted mean differences.

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Sun, Dis Colon Rectum, 2012

Péridurale vs. Lidocaïne IV

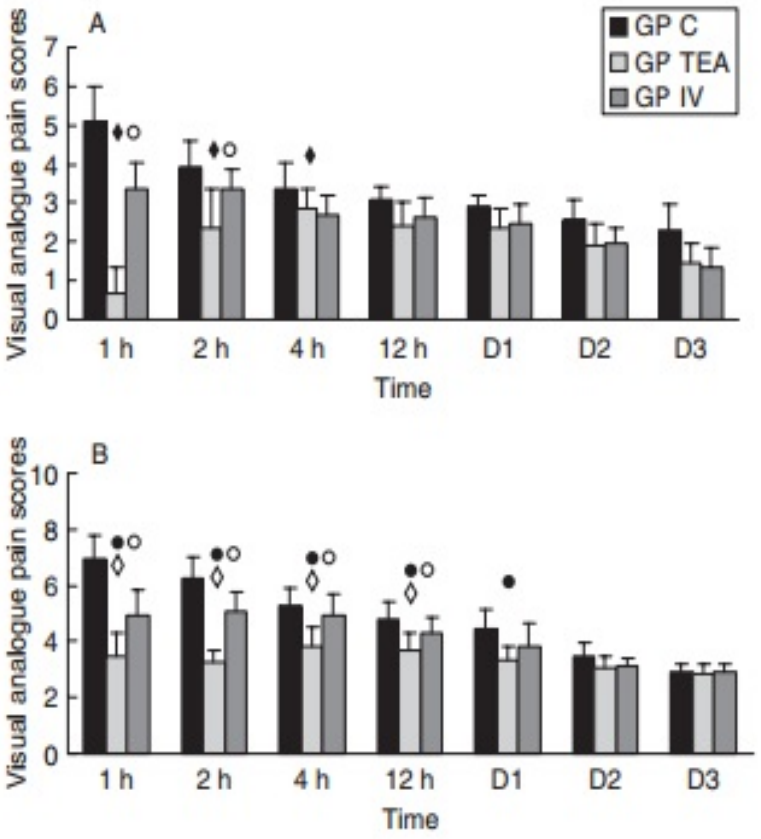

Table 2 Postoperative analgesia, incidence of side-effects, morphine requirements and hospital stay. C, control; IV, intravenous; TEA, thoracic epidural analgesia; PCEA, patient-controlled epidural analgesia. Data are expressed as mean (SD) or numbers. **P*<0.01 as compared with Group C; †*P*<0.01 as compared with Groups C and IV

	Group C (*n*=20)	Group IV (*n*=20)	Group TEA (*n*=20)
Time to first trigger of PCEA (min)	15.8 (5.7)	40.3 (10.2)*	99.8 (17.7)†
Total PCEA delivery time	20.3 (3.7)	13.8 (1.8)*	10.0 (1.1)†
Total PCEA consumption (ml)	81.6 (6.5)	55.0 (5.3)*	45.6 (3.9)†
Time to first pass of flatus (h)	71.7 (4.7)	60.2 (5.8)*	50.2 (4.9)†
Morphine-associated nausea/vomiting	9	5*	4*
Hospital stay (days)	7.1 (0.8)	6.9 (0.8)	6.8 (0.8)

Centre Léon Bérard
LYON ET RHÔNE-ALPES

Kuo, Br J Anaesth, 2006

La péridurale ne fait pas tout!...

La chirurgie

La manière de ventiler les patients:
ventilation protective et recrutement,

Les médicaments: AINS, dexamethasone…

Optimisation du remplissage

Mobilisation

Nutrition

APD: recommandations d'experts 2013

Après chirurgie colorectale par laparotomie, l'analgésie péridurale thoracique est une des techniques recommandées. (GRADE 1+) Accord Fort

L'administration intraveineuse continue de lidocaïne est recommandée en l'absence de péridurale. (GRADE 1+) Accord Fort. (Joshi GP, Bonnet F, Kehlet H; PROSPECT collaboration. Colorectal Dis. 2013)

Après une chirurgie par laparoscopie, l'analgésie péridurale thoracique n'est probablement pas recommandée. (GRADE 2-) Accord Faible (Joshi GP, Bonnet F, Kehlet H; PROSPECT collaboration. Colorectal Dis. 2013)

APD et Cochrane

01/2014

Pas d'action sur la mortalité à 30 jours

Basée sur 18 études et 3228 patients.

Réduction de 30% des pneumopathies post opératoires

Basée sur 9 études et 2433 patients

Take home message

La péridurale reste la plus efficace des méthodes antalgiques en chirurgie lourde

Elle a un impact sur la fréquence des pneumopathies postopératoires.

Sur la mortalité?