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EMILIA-ROMAGNA
Azienda Ospedaliero - Universitaria di Ferrara



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DI FERRARA
- EX LABORE FRUCTUS -

Laparoscopia in Chirurgia di Parete: Quali Evidenze?

Carlo Feo

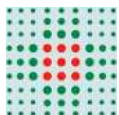


Clinica Chirurgica
Direttore: Prof. A. Liboni

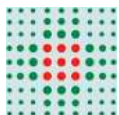
Ferrara, 11/05/2015

Indice

- Evidenze chirurgia laparoscopica *vs.* open
- Ernie inguinali
 - Plastiche extra-peritoneali *tension-free* (protesi)
 - Approccio laparoscopico
 - Trans-Addominale Pre-Peritoneale (TAPP)
 - Totalmente Extra-Peritoneale (TEP)
- Laparoceli ed ernie ventrali primitive



Piramide delle evidenze



Pro laparoscopia

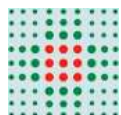
- ↓ dolore postoperatorio
- Convalescenza più breve
- Ripresa più precoce dell'attività lavorativa

Contro laparoscopia

- Complessità tecnica
- Curva di apprendimento ripida
- Complicanze negli stadi iniziali di apprendimento della tecnica

Laparoscopic techniques versus open techniques for inguinal hernia repair (Review)

McCormack K, Scott N, Go PM, Ross SJ, Grant A, Collaboration the EU Hernia Trialists



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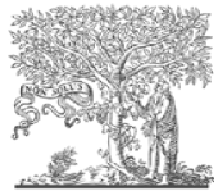
McCormack K, et al. *Cochrane Datab Systemat Rev* 2003

Meta-analisi

- 41 studi randomizzati o quasi-RCTs
- Tecnica laparoscopica vs. chirurgia open per riparazione ernia inguinale (TAPP o TEP vs. open)
- N = 7161 (dati su 4165 pazienti)
- Follow up mediano 6-36 mesi

Laparoscopia vs. Open

- ↑ tempi operatori (15 min, intervallo 14-16 min)
- ↑ rischio di complicanze gravi (rare, lesioni viscerali e vascolari)
- Ritorno più rapido alle proprie attività
- ↓ dolore persistente e ipoestesia
- Recidiva meno comune ($p > 0,05$)



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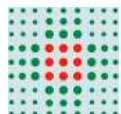


Meta-analysis of randomized controlled trials comparing Lichtenstein and totally extraperitoneal laparoscopic hernioplasty in treatment of inguinal hernias



Zheng Bobo, MD, Wang Nan, MD, Qiao Qin, MD, Wu Tao, MD, Lu Jianguo, MD, and He Xianli, MD*

Department of General Surgery, Tangdu Hospital, Fourth Military Medical University, Xi'an, China



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Recidiva

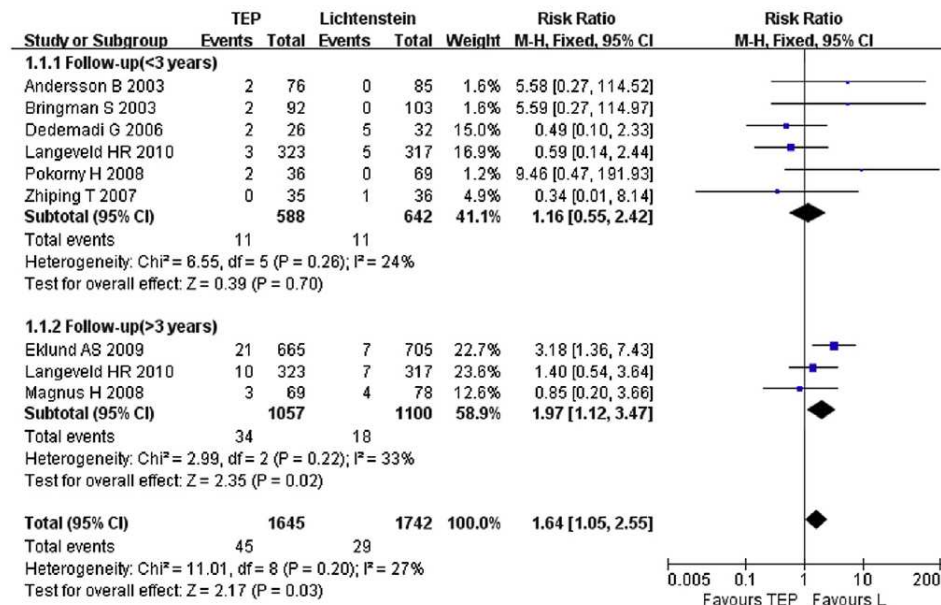
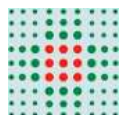


Fig. 2 – Hernia recurrence: the subgroup analysis showed that there was no significant difference between TEP and Lichtenstein when follow-up time is ≤ 3 y. However, when follow-up time is > 3 y, the subgroup analysis demonstrated a significant difference between the two groups. (Color version of figure is available online.)



Dolore cronico, Ritorno lavoro

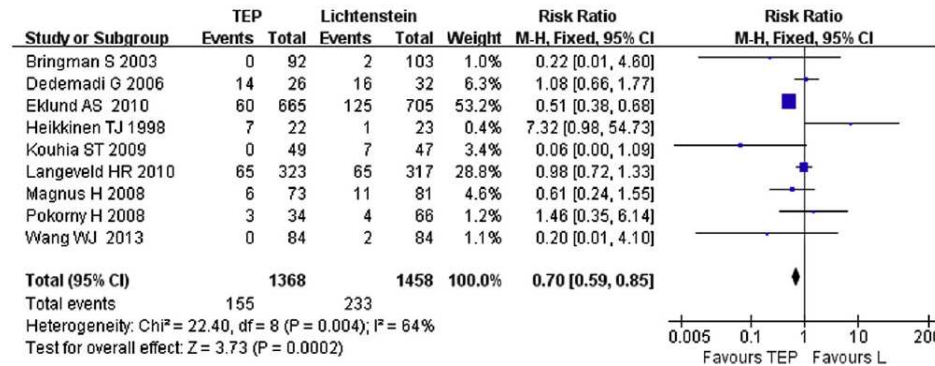


Fig. 3 – Chronic pain : seven trials reported this outcome; the combined result of these studies shows a significant reduction in chronic pain for the TEP group. (Color version of figure is available online.)

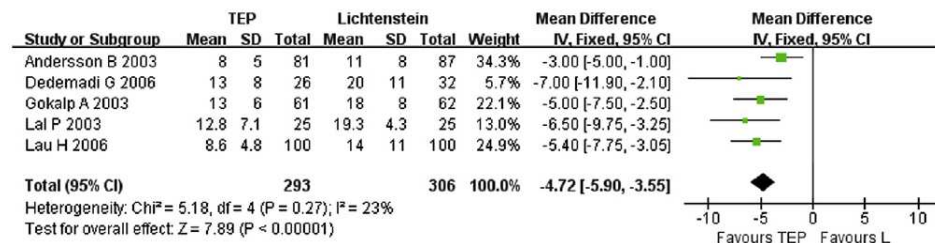


Fig. 4 – Time to return to work : the average time was longer in the Lichtenstein operation group than in the TEP group. The meta-analysis demonstrated significant differences between the two groups. (Color version of figure is available online.)

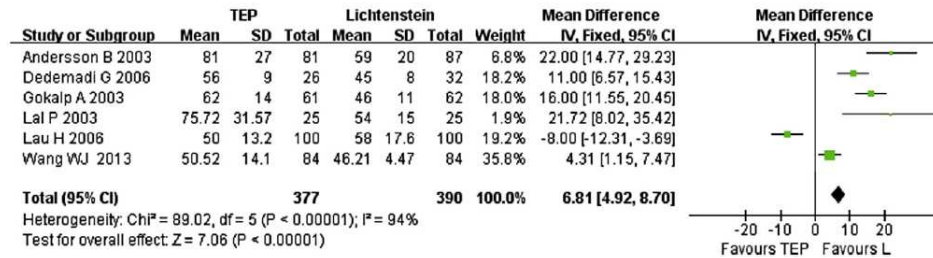


Fig. 5 – Operating time: there was a significant difference in surgical time between the two groups based on six trials. (Color version of figure is available online.)

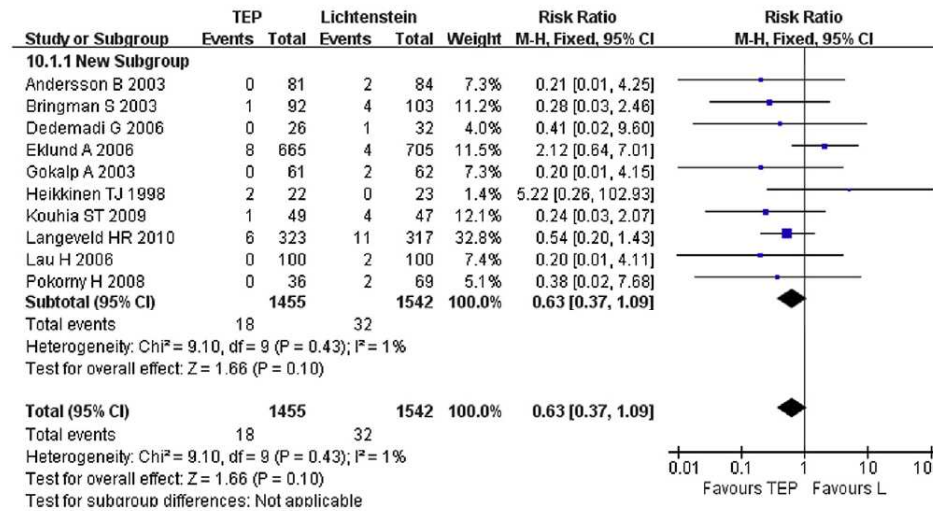


Fig. 7 – Wound infection: ten studies with a total of 2997 patients reported wound infection—1455 patients randomized to the TEP group and 1542 patients to the Lichtenstein group. The meta-analysis showed that there was no statistical difference in wound infection between TEP and Lichtenstein operations. (Color version of figure is available online.)

Dolore testicolare, Nevralgia

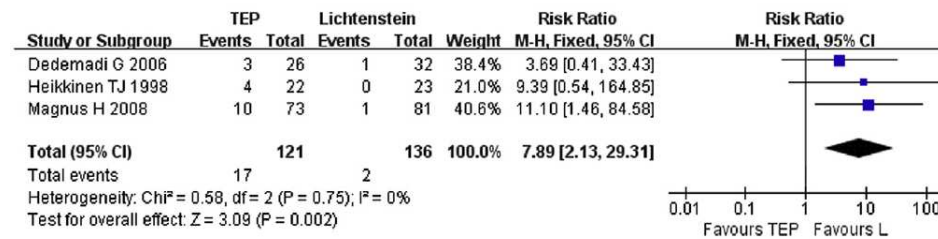


Fig. 8 – Testicular pain: in all four trials with presented data, there was a significant difference favoring the Lichtenstein repair group. (Color version of figure is available online.)

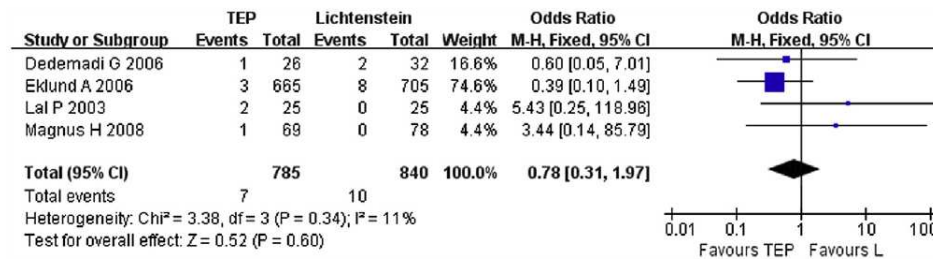
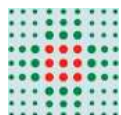


Fig. 9 – Neuralgia : including five trials, there was no significant difference in neuralgia between Lichtenstein operation group and TEP repair group. (Color version of figure is available online.)

Esperienza del chirurgo

Table 3 – Subgroup analysis : competency of the surgeons.

Outcomes	RR/WMD	95% CI	I ² (%)	P value
Hernia recurrence(<3 y)	2.79	0.68–11.39	21	0.15
Hernia recurrence(>3 y)	3.18	1.36–7.43	0	0.008
Chronic pain	0.52	0.40–0.69	16	<0.00001
Time to return to work	–4.01	(–5.53)–(–2.48)	57	<0.00001
Operating time	3.02	0.65–5.38	95	0.01
Seromas	1.5	0.90–2.50	0	0.12
Wound infection	0.94	0.39–2.23	27	0.88
Neuralgia	0.39	0.10–1.49	0	0.17



Sommario

- Lichtenstein
 - ↓ tempi operatori
 - ↓ recidive > 3 anni
 - ↓ dolore testicolare
- TEP
 - ↓ tempi per ritorno al lavoro
 - ↓ dolore cronico
- Lichtenstein = TEP
 - Infezione di ferita e sieroma
 - Nevralgia

Pro laparoscopia

- Riduce la dissezione dei tessuti molli
- Evita il posizionamento di drenaggi
- Identifica piccoli difetti fasciali ("Swiss cheese")
- La pressione intra-addominale aiuta a tenere la protesi in sede
- Recupero più rapido, convalescenza più breve
- Vantaggio cosmetico (ernie ventrali primitive)

Contro laparoscopia

- Dolore nella sede delle suture
- ↑ incidenza di perforazione intestinale
- Formazione di un sieroma postoperatorio

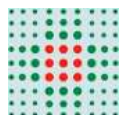
Laparoscopic versus open surgical techniques for ventral or incisional hernia repair (Review)

Sauerland S, Wälgenbach M, Habermalz B, Seiler CM, Miserez M



This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2011, Issue 3

<http://www.thecochranelibrary.com>



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Sauerland S, et al. *Cochrane Datab Systemat Rev* 2011

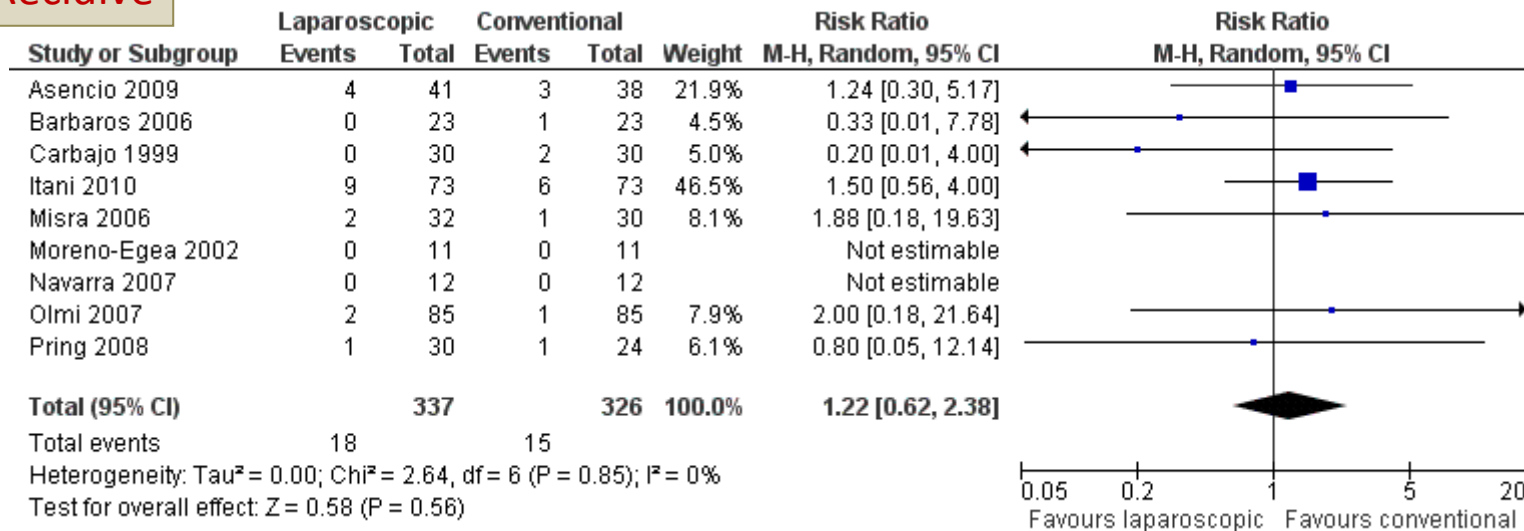
RCTs

Trial	Year	Laparoscopic (n)	Open (n)	Follow-up (yrs)
Carbajo et al.	1999	30	33	≥ 2
Moreno-Egea et al.	2002	11	11	≥ 2
Misra et al.	2006	33	33	1 - 2
Barbaros et al.	2007	23	23	1 - 2
Navarra et al.	2007	12	12	< 1
Olmi et al.	2007	85	85	≥ 2
Pring et al.	2008	31	27	≥ 2
Asencio et al.	2009	45	39	1 - 2
Itani et al.	2010	73	73	≥ 2
Buunen et al.	2010	104	104	n.r.

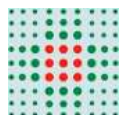
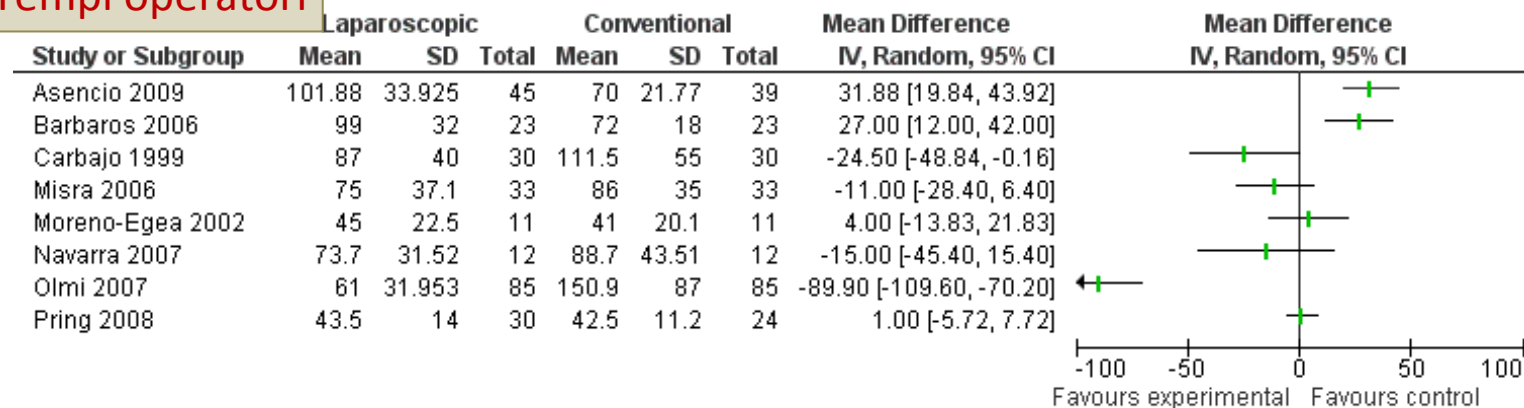
Outcomes

- Recidiva erniaria (primario)
- Tempi operatori
- Complicanze and Reinterventi
- Dolore postoperatorio
- Lunghezza della degenza ospedaliera
- Convalescenza e Soddisfazione del paziente

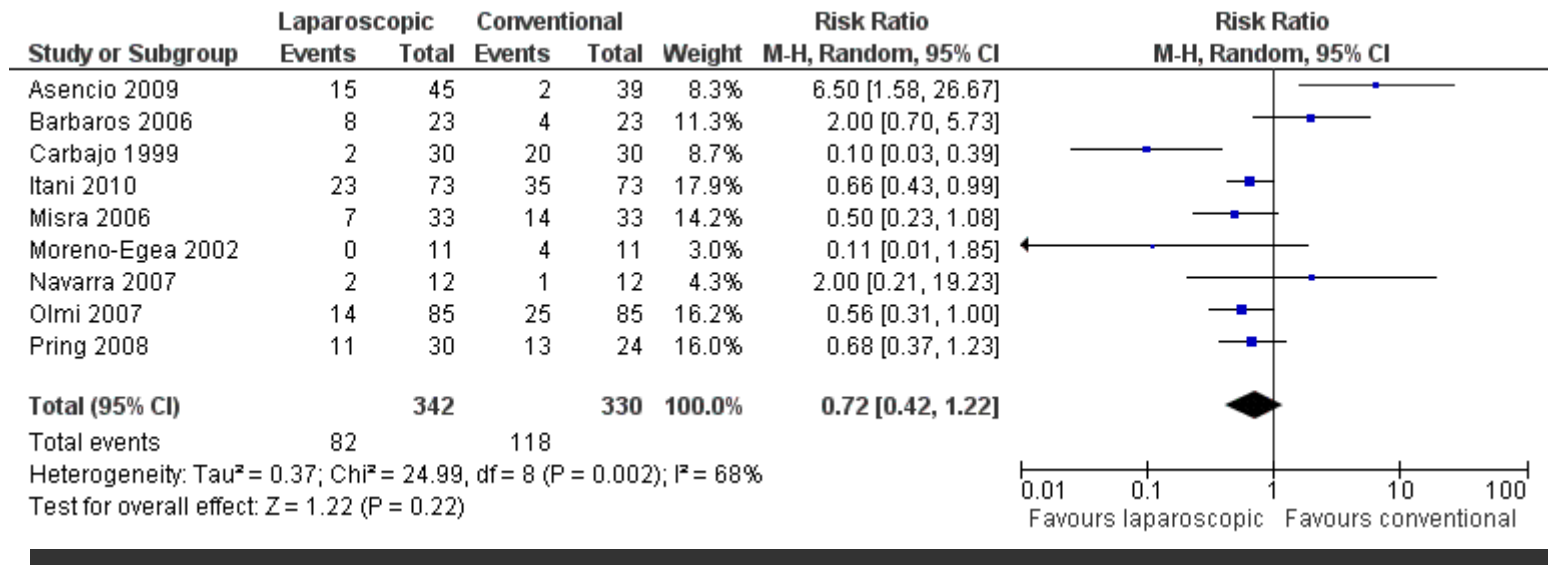
Recidive



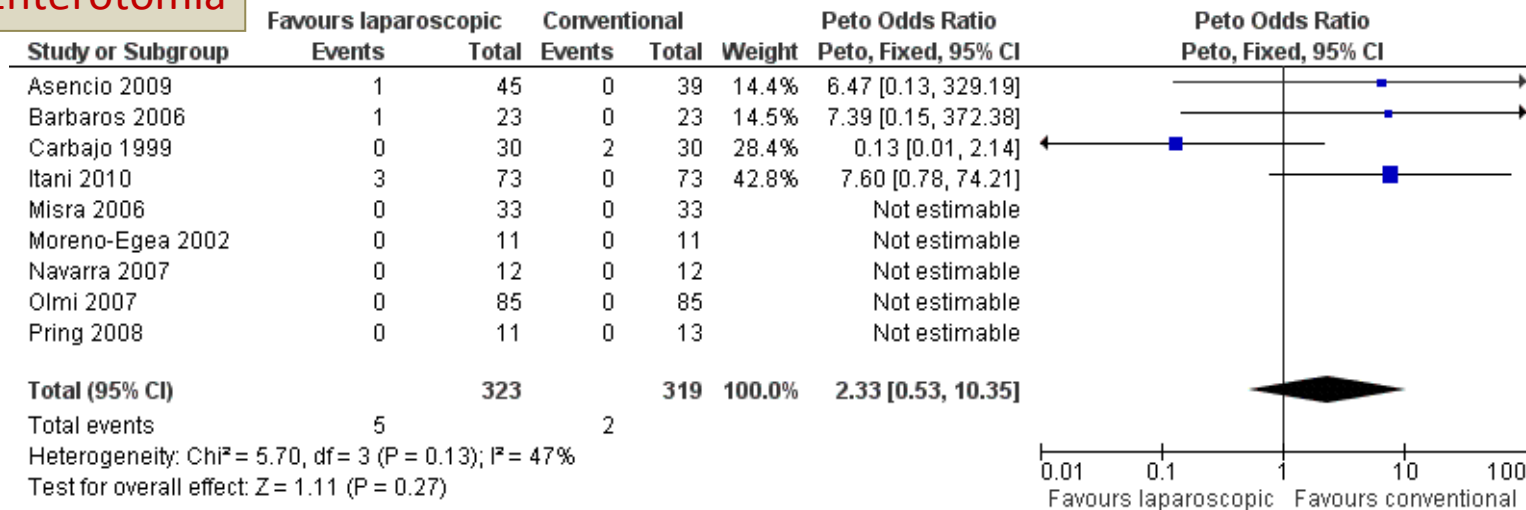
Tempi operatori



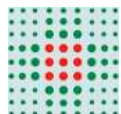
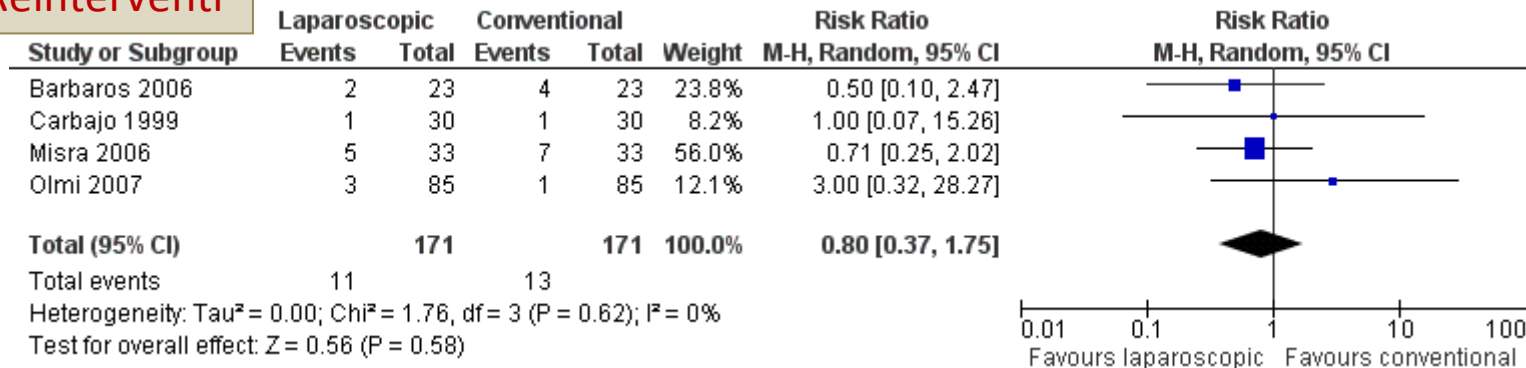
Complicanze

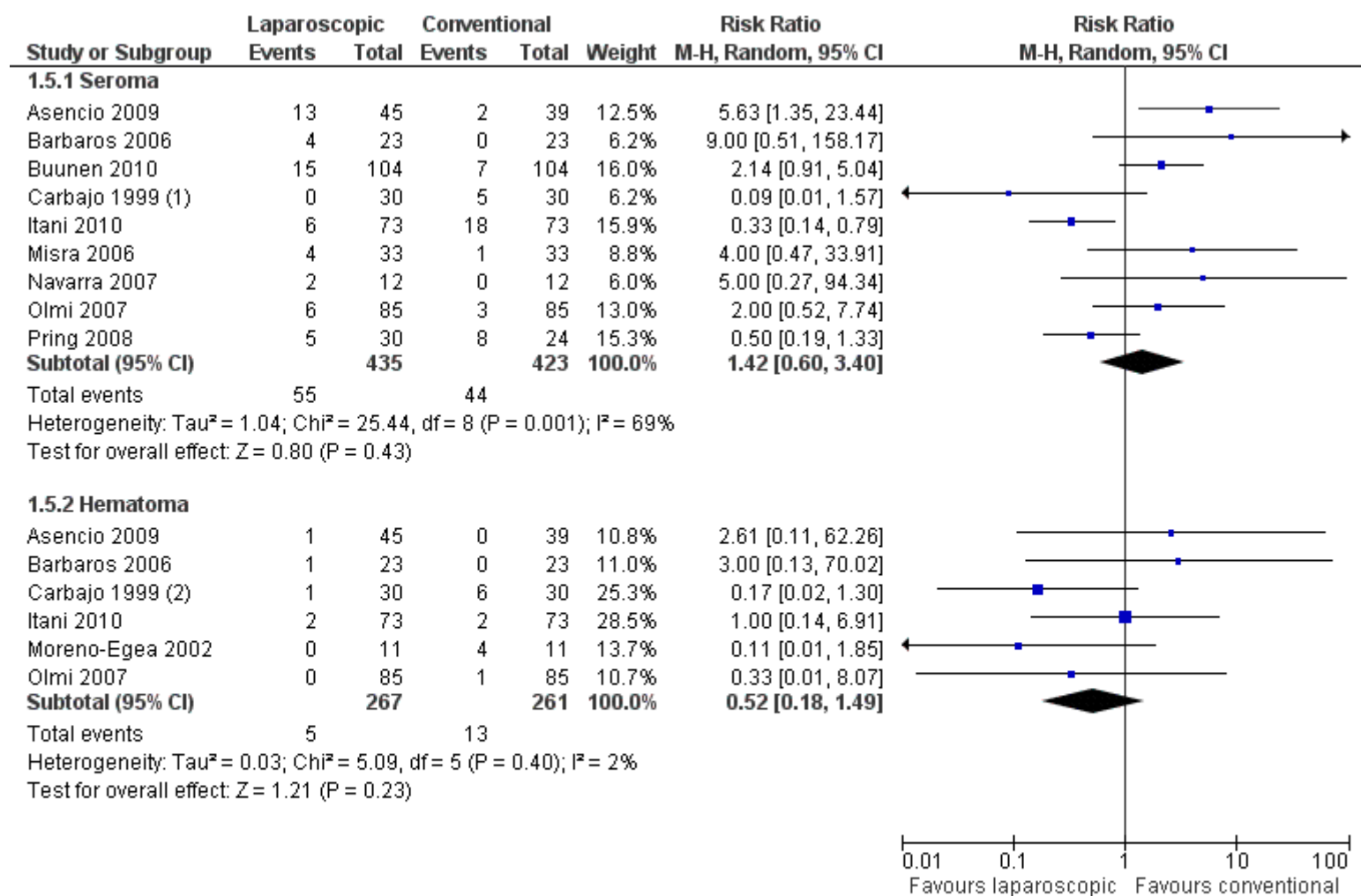


Enterotomia



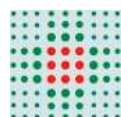
Reinterventi

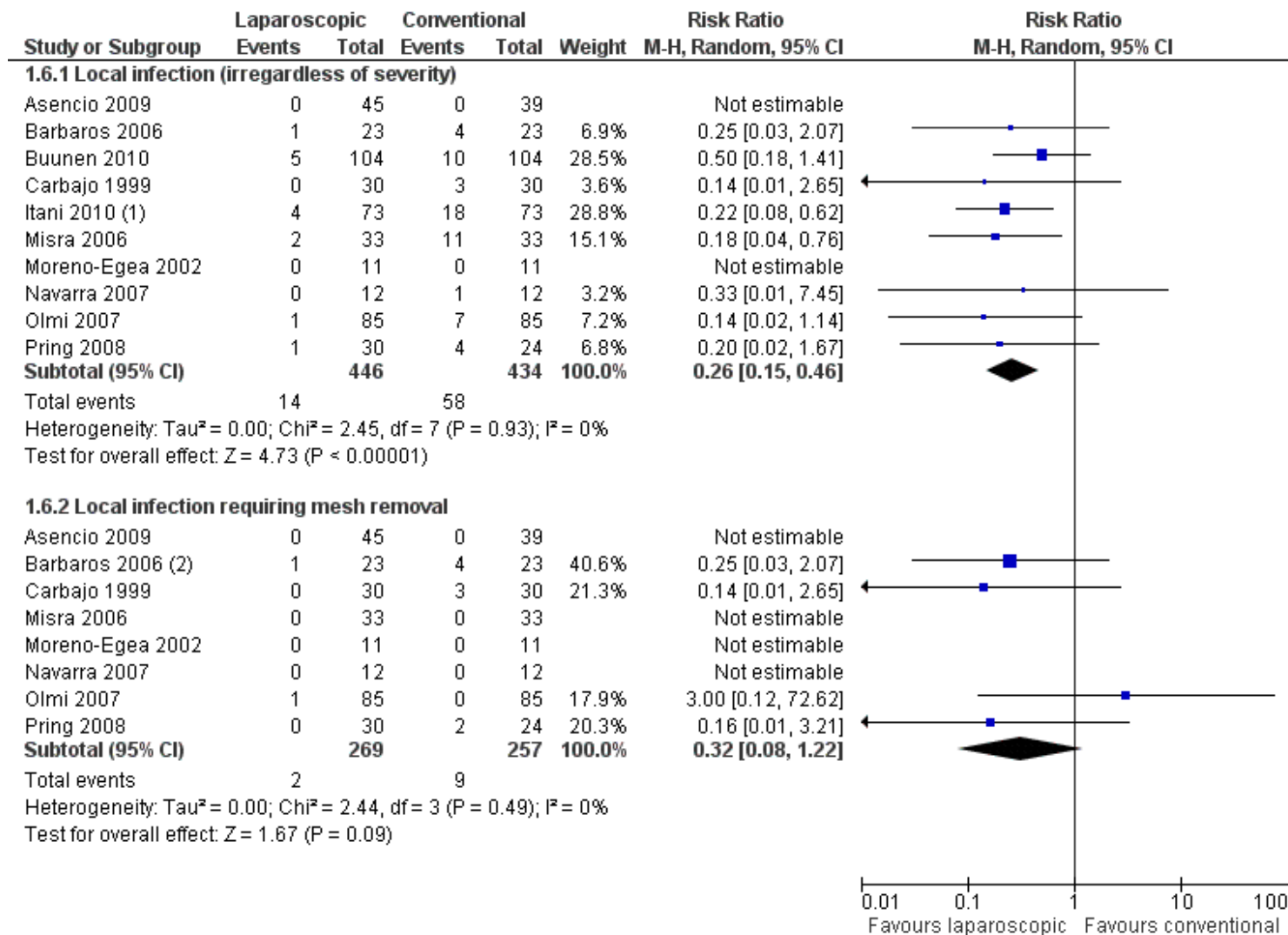




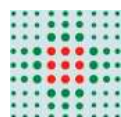
(1) Only the rate of massive seroma was extracted from this study.

(2) This includes mild and moderate hematoma (3 cases each in conventional group).



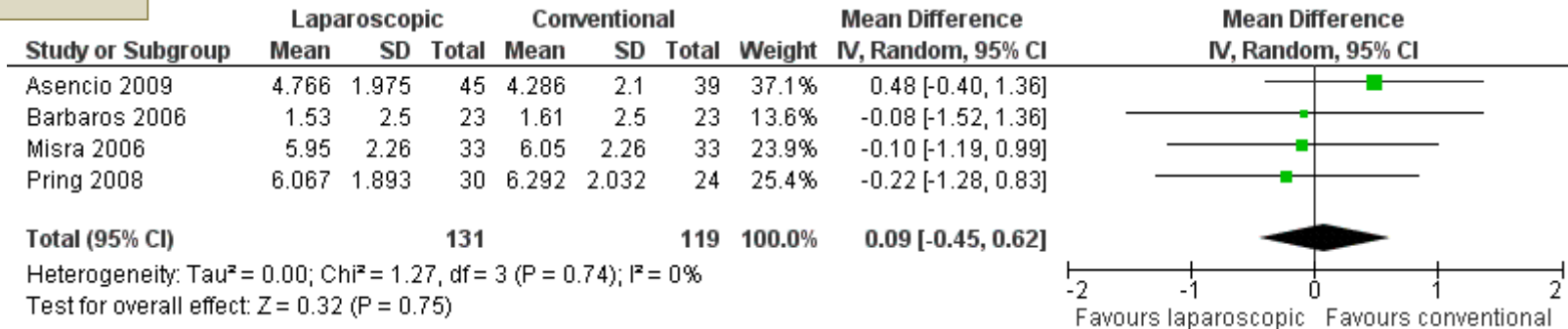


- (1) This includes intraabdominal abscess (2 cases in each group)
 (2) One additional case of "mesh rejection" was not included in this analysis.

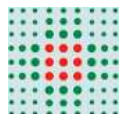
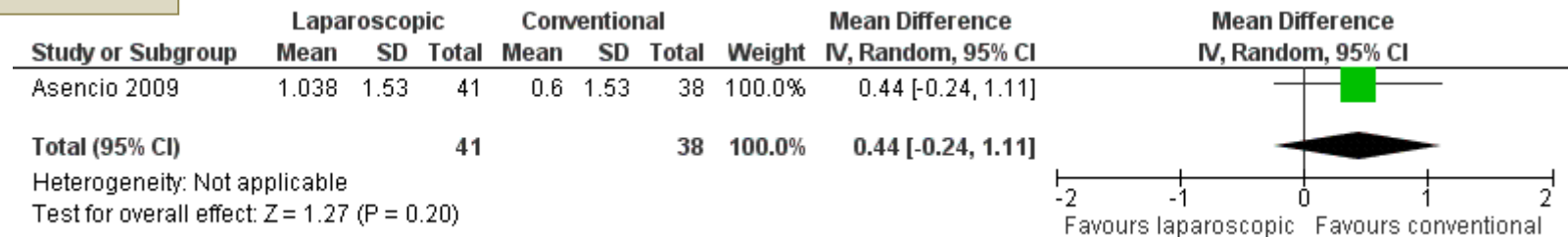


Dolore

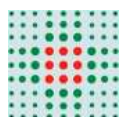
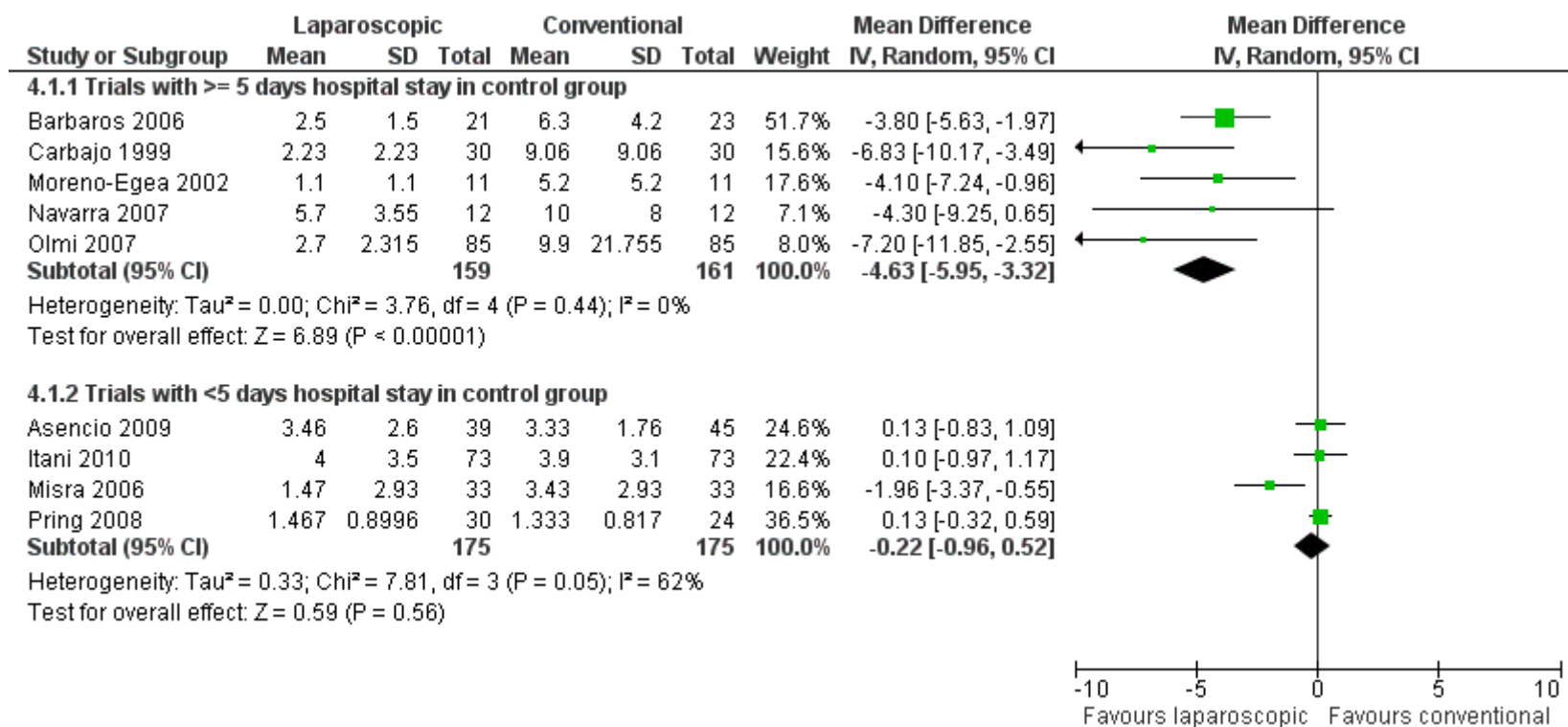
Acuto



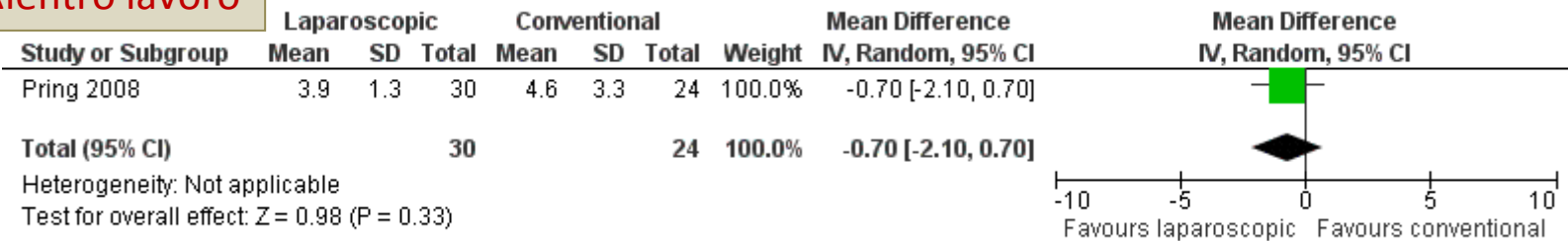
Cronico



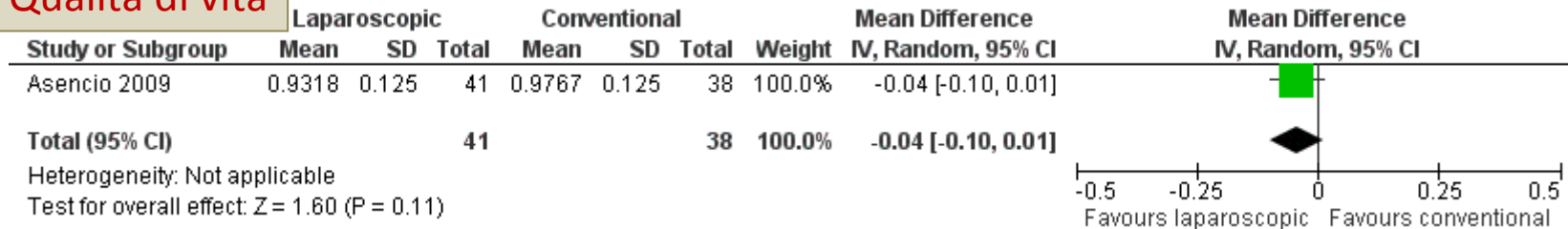
Degenza ospedaliera



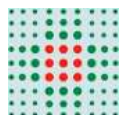
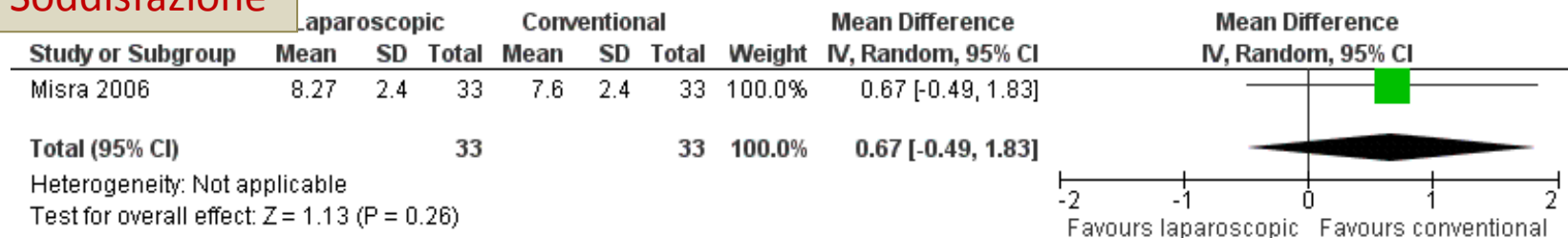
Rientro lavoro



Qualità di vita



Soddisfazione



Sommario

- = incidenza di recidiva (f/u breve)
- ↑ lieve rischio di enterotomia (solo 5 *vs* 2)
- ↓ rischio infezione di ferita
- ↓ lunghezza della degenza ospedaliera

RCTs 2012-2015

Trial	Anno	Laparoscopia vs. Open (n)	Endpoint primario	P
Eker HH, et al.	2013	94 vs. 100	Pain \leq 4 wks	0.54
Rogmark P, et al.	2013	64 vs. 69	Pain at 3 wks	0.79

Conclusioni

- I risultati a breve termine dell'approccio laparoscopico sono promettenti
- Sebbene sia necessaria una estesa viscerolisi la tecnica è sicura
- Necessario conoscere risultati a lungo termine per valutarne appieno l'efficacia