

XII CONGRESSO
“MALATTIA DOLORE E RETE TERRITORIALE”
MILANO, 23-24 MARZO 2017

Ospedale Niguarda  Sistema Socio Sanitario
Regione Lombardia 

XII EDIZIONE 
MALATTIA DOLORE
E RETE TERRITORIALE
IL DIRITTO DEL PAZIENTE AD ESSERE CREDUTO


RETE TERAPIA DEL DOLORE - MILANO

MILANO 23 > 24 MARZO 2017
AULA MAGNA · OSPEDALE NIGUARDA

Dolore pelvico cronico in esiti di trattamenti chirurgici

S. Di Lernia
Chirurgia Generale Oncologica e Mininvasiva

Dolore cronico post-operatorio

Sindrome dolorosa che si sviluppa dopo un intervento chirurgico; si riferisce a pazienti che lamentano dolore in sede di intervento ad almeno 3 mesi di distanza dallo stesso, dopo che altre cause sono state escluse (IASP, 1999)

- 11,5-47 % dei pts che si sottopongono a chirurgia
- Nello 0,5-1,5 % di tutti i pts che si sottopongono a chirurgia viene definito come severo e disabilitante



Chronic postsurgical pain

Arnaud Steyaert and Marc De Kock

Dolore cronico post-operatorio

	Estimated incidence of chronic pain	Estimated chronic severe (disabling) pain (>5 out of score of 10)	US surgical volumes (1000s)†
Amputation ²	30–50%	5–10%	159 (lower limb only)
Breast surgery (lumpectomy and mastectomy) ³	20–30%	5–10%	479
Thoracotomy ⁴⁻⁷	30–40%	10%	Unknown
Inguinal hernia repair ⁸⁻¹⁰	10%	2–4%	609
Coronary artery bypass surgery ¹¹⁻¹³	30–50%	5–10%	598
Caesarean section ¹⁴	10%	4%	220

Un numero allarmante di pazienti sviluppa dolore postoperatorio cronico, rappresenta quindi un **importante problema socio-economico**

Kehlet, Lancet, 2006

Dolore cronico post-operatorio

Consequences of unrelieved pain Organ systems	Physiologic responses
Cardiovascular	Increased heart rate, peripheral vascular resistance, arterial blood pressure, and myocardial contractility resulting in increased cardiac work, myocardial ischemia and infarction
Pulmonary	Respiratory and abdominal muscle spasm (splinting), diaphragmatic dysfunction, decreased vital capacity, impaired ventilation and ability to cough, atelectasis, increased ventilation/perfusion mismatch, hypoventilation, hypoxemia, hyper carbia, increased postoperative pulmonary infection
Gastrointestinal	Increased gastrointestinal secretions and smooth muscle sphincter tone, reduced intestinal motility, ileus, nausea, and vomiting
Renal	Oliguria, increased urinary sphincter tone, urinary retention
Coagulation	Increased platelet aggregation, venostasis, increased deep vein thrombosis, thromboembolism
Immunologic	Impaired immune function, increased infection, tumor spread or recurrence
Muscular	Muscle weakness, limitation of movement, muscle atrophy, fatigue
Psychological	Anxiety, fear, anger, depression, reduced patient satisfaction
Overall recovery	Delayed recovery, increased need for hospitalization, delayed return to normal daily living, increased health care resource utilization, increased health care costs

Ha conseguenze a livello sistemico

Fattori di rischio

- Suscettibilità genetica (polimorfismo COMT ecc..)
- Dolore pre-esistente e dolore postoperatorio intenso
- Fattori psicosociali (precedenti esperienze, paura, condizionamenti culturali e ambientali ecc)
- Età < 60 anni e sesso femminile



Importanti al fine di identificare pts a rischio in cui fare prevenzione

Dolore cronico post-operatorio

Definizione

Pain perceived in structures relates to the pelvis lasting more than 6 months, without evident infective or other causes

Sacral nerve modulation in the treatment of chronic pain after pelvic surgery

J. Martellucci*, **G. Naldini†**, **G. Del Popolo‡** and **A. Carriero§**

*General Surgery I, University of Siena, Siena, Italy, †General Surgery IV, University Hospital of Pisa, Pisa, Italy, ‡Neurourology Spinal Unit, Careggi University Hospital of Florence, Florence, Italy and §Pelvic Floor Center, Montecchio Emilia, Italy

Received 10 January 2011; accepted 21 March 2011; Accepted Article online 25 April 2011

Chronic pelvic pain is characterized by persistent pain lasting longer than 6 months or recurrent episodes of abdominal/pelvic pain, hypersensitivity or discomfort often associated with elimination changes and sexual dysfunction in the absence of organic etiology

A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report From the Chronic Pelvic Pain Working Group of the International Continence Society

Doggweiler et al.

2016 Wiley Periodicals, Inc.

Fisiopatologia – Pain pathway

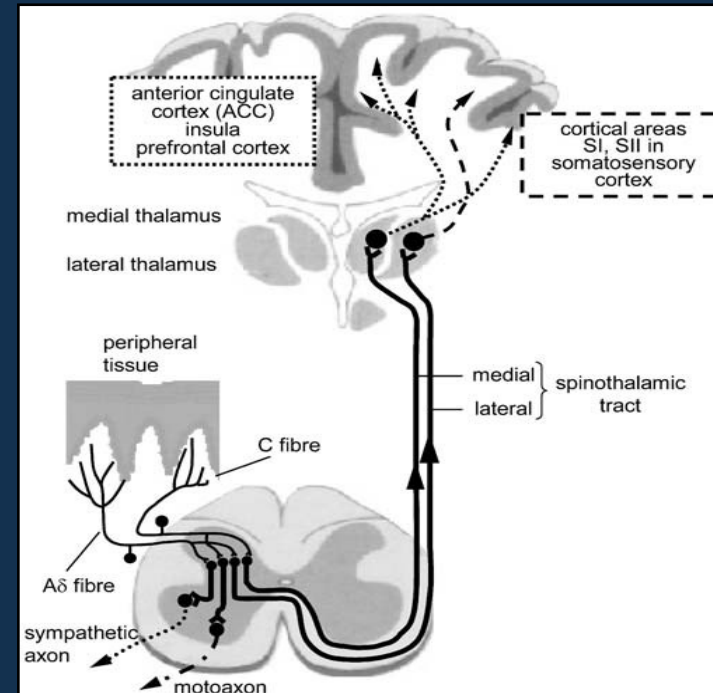
Chronic pain after surgery

Iain Jones

Francoise Bari

Surgery, 2014

- Trasduzione
- Trasmissione
- Percezione
- Modulazione



Un evento che intervenga a qualsiasi livello nell'alterazione di questa sequenza può essere causa di dolore cronico attraverso complessi meccanismi a livello periferico o centrale (iperalgia primaria o secondaria)

Fisiopatologia – Pain pathway

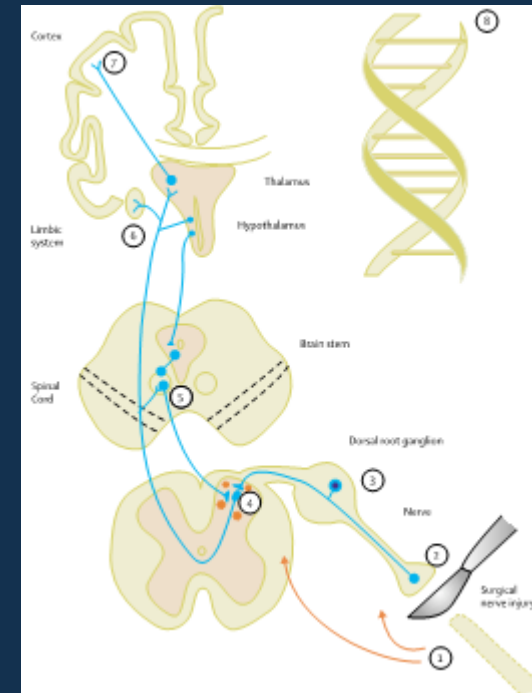
Chronic pain after surgery

Iain Jones

Francoise Bari

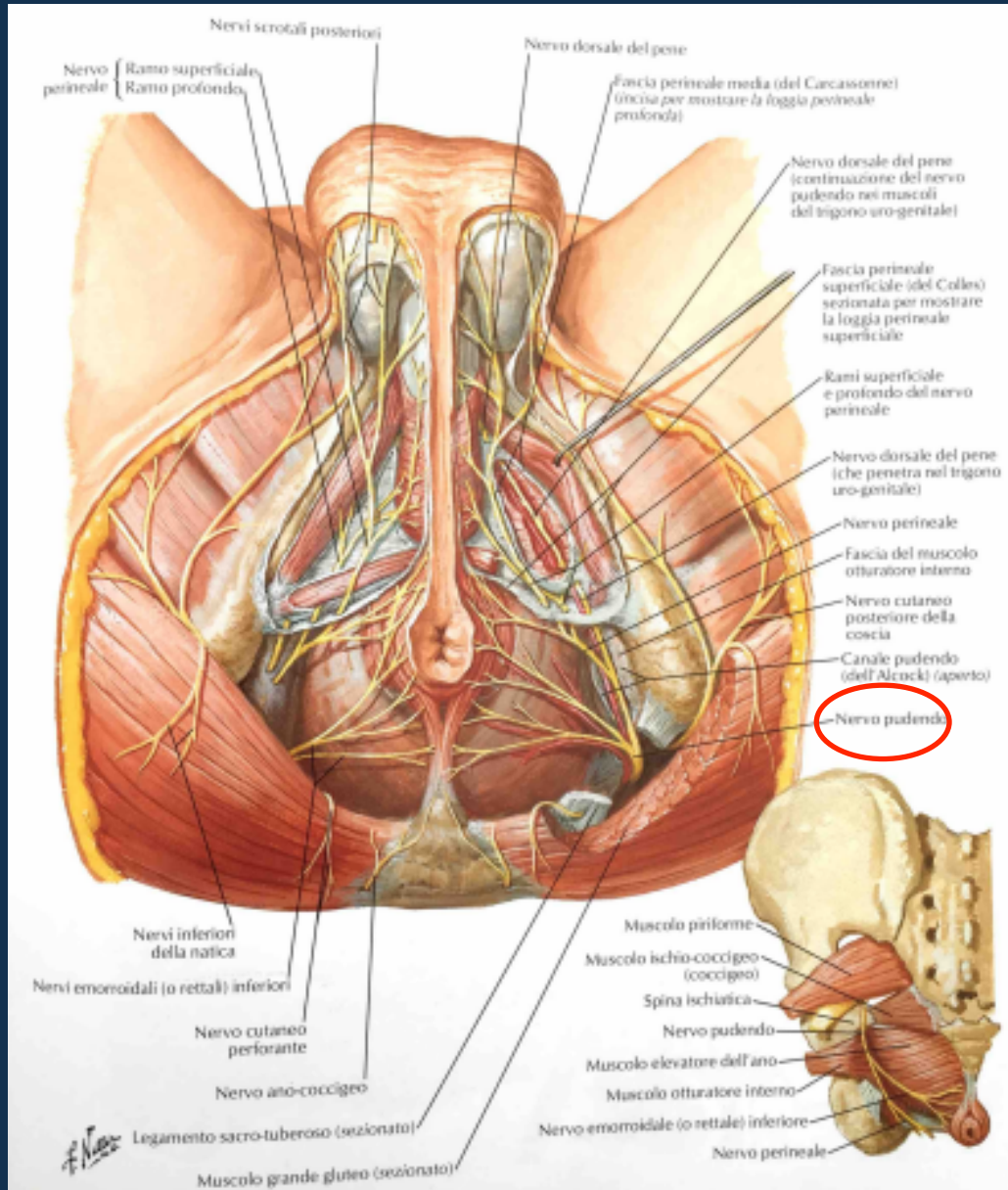
Surgery, 2014

Il processo infiammatorio e le lesioni nervose, determinati dall'atto chirurgico, concorrono, in varia misura, nell'instaurarsi del dolore postoperatorio cronico



Stretta correlazione tra
infiammazione e dolore cronico

Nervo pudendo



- ❖ Ingiuria o intrappolamento del nervo pudendo
- ❖ Lesioni muscolari con ipertono involontario dei muscoli pelvici

Interventi chirurgici

- Interventi urologici e uro-ginecologici (prostatectomia, interventi per prolasso vescicale, incontinenza urinaria, ecc)
- Interventi ginecologici (isterectomia, interventi per prolassi vaginali, endometriosi, parti cesarei, ecc)

Interventi di chirurgia generale



Amputazione addomino-perineale sec. Miles
Resezione anteriore del retto con TME o PME
Resezione sec. Hartmann

Interventi proctologici → STARR, emorroidectomia,
emorroidopessi, fistulectomia, leiomiosfinterotomia

Isterectomia

Prostatectomia

Endometriosi

INTERVENTI UROLOGICI E GINEC

Incontinenza urinaria

TABLE 1. Prevalence of PPOP After Common Surgical Procedures

Cesarean delivery	10% with 4% severe debilitating pain
Midurethral sling	0%–30%
Posterior colporraphy	Up to 25% (especially with levatorplasty)
Sacrospinous ligament suspension	10% to 15% (2% requiring intervention for resolution)
Transvaginal mesh	11.7%–19%
Sacrocolpexy	unknown% (but 10.5% mesh erosion with most presenting with complaints of pain)

Persistent Postoperative Pain: Pathophysiology, Risk Factors, and Prevention

Charles W. Butrick, MD, FPMRS

Chirurgia del carcinoma del retto



CHIRURGIA GENERALE



Chirurgia proctologica

CHIRURGIA DEL K RETTO

Caratteristiche pazienti arruolati

Table 1

Patient and treatment characteristics of the participating and nonparticipating patients.

Characteristics	Participating (n = 1369)	Nonparticipating (n = 346)
Mean age at surgery (range), y	65 (26-90)	67 (35-90)
Follow-up (range), y	6.6 (4.2-10.2)	6.7 (4.2-10.2)
Gender, n (%)		
Male	823 (60)	183 (53)
Female	546 (40)	163 (47)
Type of surgery, n (%)		
TME	542 (40)	136 (39)
PME	351 (26)	79 (23)
Unknown TME/PME	10 (1)	3 (1)
Hartmann procedure	115 (8)	34 (10)
APE	351 (26)	94 (27)
Radio(chemo)therapy, n (%)		
No	839 (61)	207 (60)
Yes	530 (39)	139 (40)
Preoperative short course	156 (29)	
Long course (+chemotherapy)	259 (49)	
Postoperative radiotherapy/ chemotherapy	92 (17)	
Missing data	23 (4)	

APE, abdominoperineal excision; PME, partial mesorectal excision; TME, total mesorectal excision.

Chronic pain in the pelvic area or lower extremities after rectal cancer treatment and its impact on quality of life: a population-based cross-sectional study

Marie-Louise Feddem^{a,*}, Troels Staehelin Jensen^b, Søren Laurberg^a

September 2015

Fattori di rischio

Table 3

Logistic regression analysis of risk factors for chronic pain in the pelvic region or lower extremities.

Risk factor	Univariate logistic regression		Multivariate logistic regression (n = 1359)	
	OR (CI) for pain	P	OR (CI) for pain	P
→ Gender (male vs female)	1.81 (1.43-2.28)	<0.001	1.91 (1.51-2.43)	<0.001
Time since surgery, y	0.98 (0.92-1.05)	0.642	0.98 (0.92-1.05)	0.631
→ Radio(chemo)therapy (no/yes)	1.49 (1.18-1.88)	<0.001	1.31 (1.01-1.7)	0.041
Type of surgery (ref: PME)				
TME	1.48 (1.09-2.00)	0.012	1.39 (1.01-1.90)	0.041
→ APE	1.85 (1.33-2.56)	<0.001	1.73 (1.21-2.47)	0.003
Hartmann procedure	1.51 (0.95-2.39)	0.081	1.74 (1.06-2.87)	0.030
Age at surgery (ref: <55), y				
55-65	0.76 (0.54-1.07)	0.119	0.8 (0.57-1.13)	0.201
65-75	0.68 (0.48-0.96)	0.030	0.7 (0.49-0.99)	0.047
>75	0.63 (0.42-0.96)	0.032	0.6 (0.38-0.94)	0.026

APE, abdominoperineal excision; CI, confidence interval; OR, odds ratio; PME, partial mesorectal excision; TME, total mesorectal excision.

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September 2015

Caratteristiche del dolore

Table 2

Patient, treatment, and pain characteristics of the study participants reporting pain in the pelvic region or lower extremities after rectal cancer treatment (n = 426 of 1369).

Characteristics	Number of patients, total reporting pain n = 426
Frequency of pain, n (%)	
Everyday	173 (41)
Weekly	70 (16)
Monthly	103 (24)
Less than monthly	59 (14)
Missing data	21 (5)
Age at surgery, n (%), y	
<55	78 (18)
55-65	156 (37)
65-75	137 (32)
>75	55 (13)
Type of surgery, n (%)	
TME	172 (40)
PME	84 (20)
Unknown TME/PME	4 (1)
Hartmann procedure	37 (9)
APE	129 (30)
Location of pain (may be several), n (%)	
Perineal area	172 (40)
Gluteus (including scar)	196 (46)
Abdomen	185 (43)
Lower extremity (groin-below knee)	237 (56)
Lower extremity (below knee-feet)	97 (23)
Missing data	0

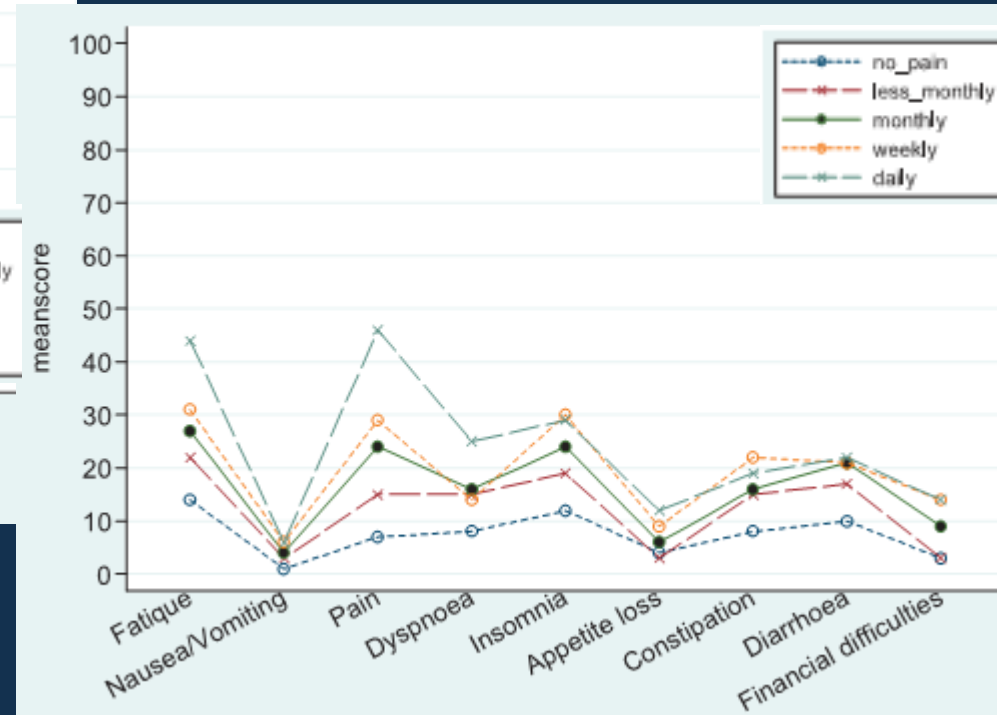
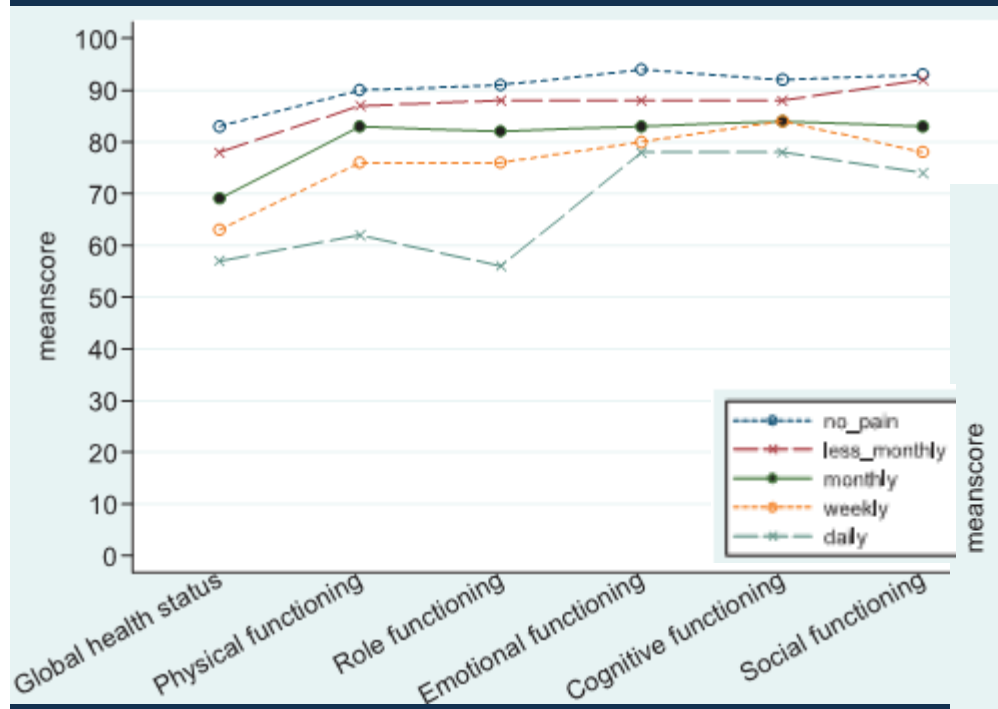
Pain intensity, on a scale from 0-10, median (range)	4 (0-10)
Mild (0-3)	176 (41)
Moderate (4-6)	175 (41)
Severe pain (7-10)	61 (14)
Missing data	14 (3)
Pain duration, n (%)	
Constant (always)	86 (20)
Periodically	282 (66)
Brief (1 minute at the most)	40 (9)
Missing data	18 (4)
Pain location, n (%)	
Superficial	119 (28)
Deep	262 (61)
Missing data	45 (11)
Pain at activities, n (%)	
Total, yes	347 (81)
Missing data	79 (19)
Pain occurs or worsens at activities (more ticks allowed), n (%)	
Sitting	104 (24)
Moving	112 (26)
Walking stairs	65 (15)
Urinating	25 (6)
Intercourse	21 (5)
Defecating	43 (10)

APE, abdominoperineal excision; PME, partial mesorectal excision; TME, total mesorectal excision.

$$426/1369 = 31\%$$

Chronic pain in the pelvic area or lower extremities after rectal cancer treatment and its impact on quality of life: a population-based cross-sectional study

Qualità della vita



Riduzione della qualità della vita dal punto di vista fisico e mentale con sviluppo anche di disabilità

Chronic pain in the pelvic area or lower extremities after rectal cancer treatment and its impact on quality of life: a population-based cross-sectional study

Marie-Louise Feddem^{a,*}, Troels Staehelin Jensen^b, Søren Laurberg^a

September 2015

CHIRURGIA PROCTOLOGICA

Chirurgia proctologica

- Il dolore sembrerebbe dipendere dall' **intrappolamento del muscolo sfintere interno nella rima di sutura**, sebbene può essere presente anche senza coinvolgimento dello sfintere interno (tipico di PPH * e STARR **)
- **Altre cause** → persistere della patologia emorroidaria, spasmo sfinteriale e/o rettale, alta pressione anale basale, retrazione cicatriziale della sutura, fissurazioni anali.
- (tipico delle emorroidectomie convenzionali)
- > nei maschi
- Incidenza tra 1,6-31 %
- Causa più frequente di reintervento a distanza («agrappectomy»)

* Hemorrhoidopexy

** Stapled transanal rectal resection

Postoperative complications after procedure for prolapsed hemorrhoids (PPH) and stapled transanal rectal resection (STARR) procedures

Chirurgia proctologica

E' un dolore descritto come intenso e profondo, spesso refrattario al trattamento medico, associato in modo variabile con tenesmo e/o urgenza (proctalgia). Spesso connesso con la defecazione, a volte si risolve dopo 10-30 min dalla defecazione (80% see Pescatori et. al)

Table 3 Longer-term Follow-up and Symptoms Duration

Parameter	SH (n/%)	CH (n/%)	P value
Fever (>38°C)	4/3.6%	14/4.4%	0.821
Bleeding at 3/12	2/1.8%	5/1.6%	0.870
Urgency at 3/12	9/8.2%	2/0.6%	0.045
<u>Pain at 3/12</u>	<u>3/2.7%</u>	<u>4/1.2%</u>	0.175
Bleeding at 1 yr	1/0.9%	2/0.6%	0.967
Urgency at 1 yr	1/0.9%	1/0.3%	0.436
<u>Pain at 1 yr</u>	<u>3/2.7%</u>	<u>2/0.6%</u>	0.082
Satisfaction (score 4/4)	85%	66%	0.051
Return to work (days)	17.3±11.7	17.5±10.8	0.856

Si sottolinea l'importanza di un' adeguata (agrapphes rappresentano uno stimolo inf

Table 5 Number of Patients with a Complication (N) Requiring Reintervention (n)

Reintervention	SH n/N(%)	CH n/N(%)	P value
For pain	<u>1/3(33.3%)</u>	0/2	0.83
For bleeding	1/5(20%)	3/9(33.3%)	0.54
For skin tags	2/13(15.4%)	3/41(7.3%)	0.39
For anal fissure	2/6(33%)	4/7(57%)	0.43
For abscess/Fistula	0	2/2(100%)	0.79
For stenosis	0/2	2/10(20%)	0.84
For recurrence	4/8(50%)	1/5(20%)	0.31
cumulative	10/37(27%)	15/74 (20.3%)	0.64
OVERALL RATE	10/110(9.1%)	15/315(4.8%)	0.06

Sileri P, Stolfi VM, Franceschilli L, Perrone F, Patrizi L, Gaspari AL (2008) Reinterventions for specific technique-related complications of stapled Haemorrhoidopexy (SH): a critical appraisal. J Gastrointest Surg 12(11):1866-72

Chirurgia proctologica

Table 1 Patients treated for persistent anal pain after stapler procedure

Patients	21
Sex (male/female)	7:14
Age	54.3 (35–74)
PPH	13 (61 %)
STARR	8 (39 %)
Mean time from stapler procedure	4.27 (0.5–18 months)

- Importanza della sede della sezione chirurgica, del tipo di cicatrice chirurgica (grado di fibrosi) della sua fissità rispetto allo sfintere interno
- **Più frequente nella PPH rispetto alla STARR**

Tasso di reintervento per dolore cronico

21/1500 = 1,4%

Persistent anal and pelvic floor pain after PPH and STARR: surgical management of the fixed scar staple line

Claudia Menconi¹ · Bernardina Fabiani¹ · Iacopo Giani¹ · Jacopo Martellucci²
Gianluca Toniolo¹ · Gabriele Naldini¹ Int J Colorectal Dis

**Più frequente nelle emorroidectomie rispetto alle emorroidopessie
(14/50 vs 9/50)**

Complications Following Anorectal Surgery

Hiroko Kunitake, MD, MPH¹ Vitaliy Poylin, MD, FACS, FASCRS² Clin Colon Rectal Surg 2016

ADERENZE POST-CHIRURGICHE

Aderenze post-chirurgiche

Alla base di un dolore cronico soprattutto addominale ma anche pelvico sembrerebbe potersi annoverare anche il vasto e poco studiato campo delle aderenze post-chirurgiche

Diagnostic Laparoscopy and Adhesiolysis: Does It Help with Complex Abdominal and Pelvic Pain Syndrome (CAPPS) in General Surgery?

Gregory D. McClain, MD, Jay A. Redan, MD, Steven D. McCarus, MD,
Aileen Caceres, MD, John Kim, MD

JSLs (2011)15:1-5

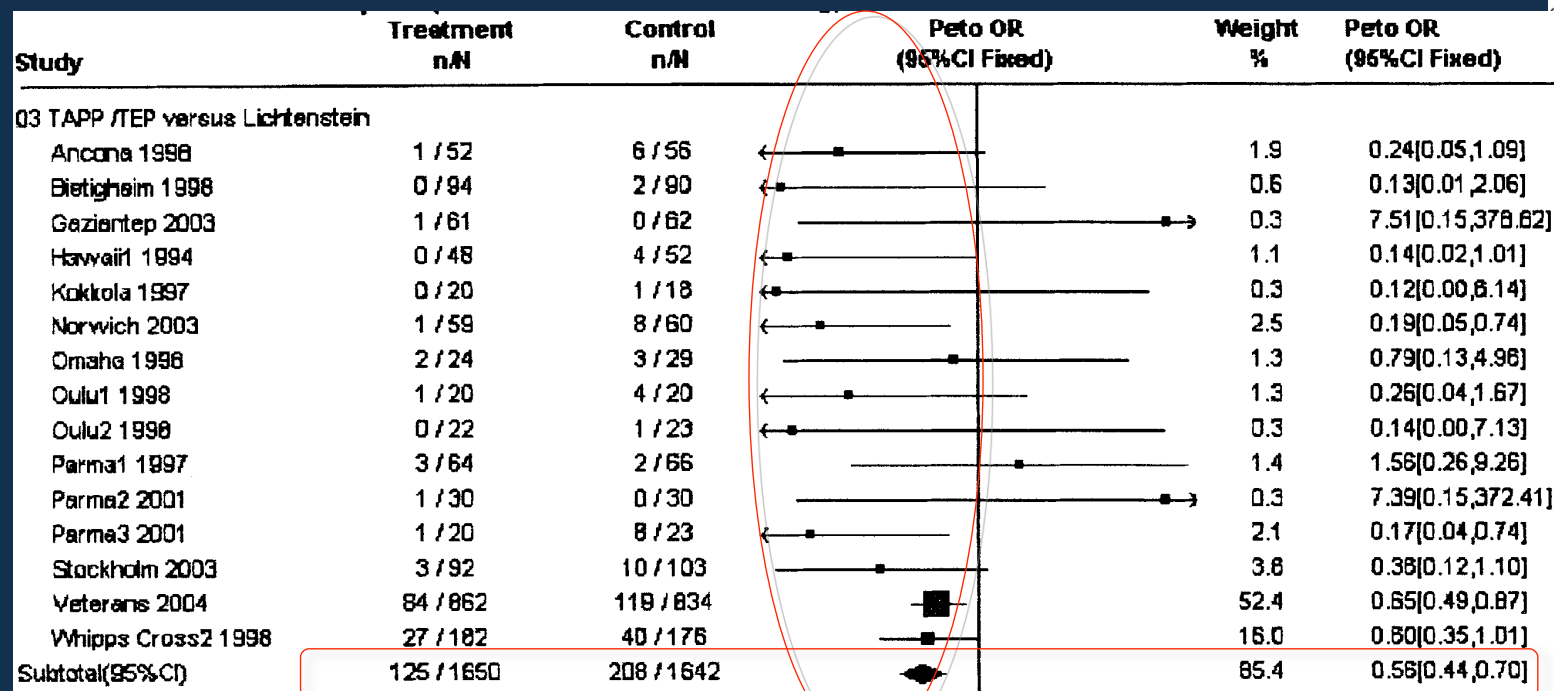


COSA POSSIAMO FARE ?

Comparison of endoscopic procedures vs Lichtenstein and other open mesh techniques for inguinal hernia repair

A meta-analysis of randomized controlled trials

C. G. Schmedt,¹ S. Sauerland,² R. Bittner³



Il trattamento delle ernie per via laparoscopica determina un'incidenza significativamente più bassa di dolore cronico rispetto al trattamento open
 125/1650 -7.6% vs 208/1642 -12.7% (p < 0.00001)

Five-year follow-up of a randomized trial to assess pain and numbness after laparoscopic or open repair of groin hernia

A. M. Grant¹, N. W. Scott² and P. J. O'Dwyer³, on behalf of the MRC Laparoscopic Groin Hernia Trial Group

	12 months		24 months		36 months		60 months	
	Laparoscopic	Open	Laparoscopic	Open	Laparoscopic	Open	Laparoscopic	Open
Pain in groin	108 of 390 (27.7)	129 of 362 (35.6)	87 of 358 (24.3)	95 of 323 (29.4)	68 of 337 (20.2)	82 of 309 (26.5)	51 of 282 (18.1)	54 of 269 (20.1)
χ^2 test	$\chi^2 = 5.49$, 1 d.f., $P = 0.019$		$\chi^2 = 2.26$, 1 d.f., $P = 0.132$		$\chi^2 = 3.66$, 1 d.f., $P = 0.056$		$\chi^2 = 0.35$, 1 d.f., $P = 0.552$	
Very severe	0 (0)	3 (0.8)	1 (0.3)	1 (0.3)	0 (0)	0 (0)	0 (0)	0 (0)
Severe	15 (3.8)	5 (1.4)	8 (2.2)	8 (2.5)	3 (0.9)	6 (1.9)	6 (2.1)	4 (1.5)
Mild	43 (11.0)	55 (15.2)	28 (7.8)	33 (10.2)	30 (8.9)	38 (12.3)	20 (7.1)	26 (9.7)
Very mild	50 (12.8)	66 (18.2)	50 (14.0)	53 (16.4)	35 (10.4)	38 (12.3)	25 (8.9)	24 (8.9)
None	282 (72.3)	233 (64.4)	271 (75.7)	228 (70.6)	269 (79.8)	227 (73.5)	231 (81.9)	215 (79.9)

Il trattamento laparoscopico dell'ernia inguinale determina minor incidenza di dolore cronico postoperatorio e minori parestesie rispetto al trattamento open

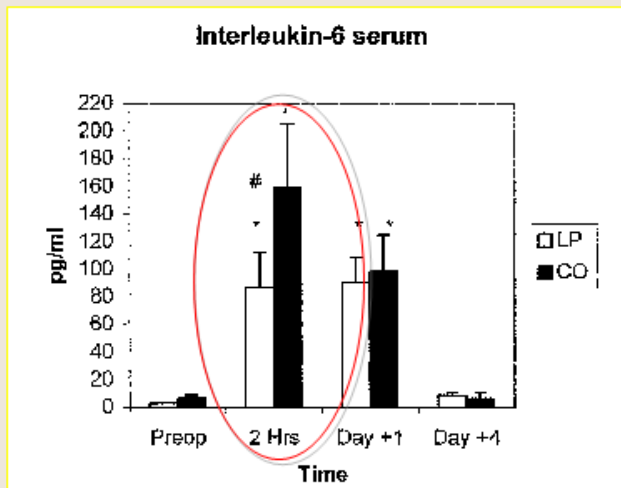
Uno sforzo per ridurre l'inflammation...

Dis Colon Rectum, 2003

Systemic and Peritoneal Inflammatory Response After Laparoscopic or Conventional Colon Resection in Cancer Patients

A Prospective, Randomized Trial

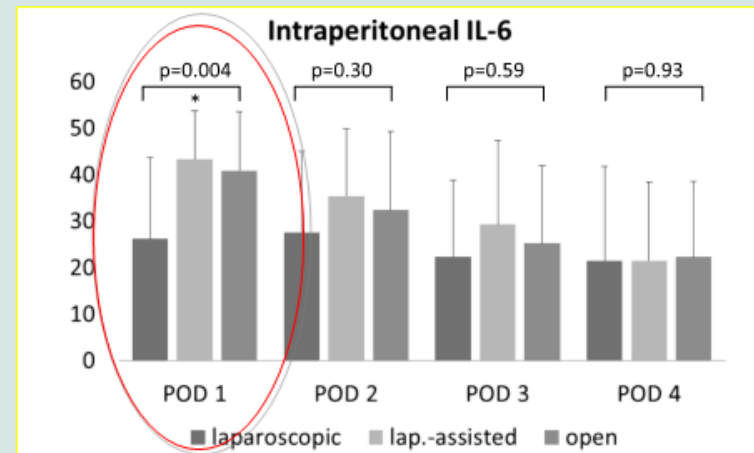
F. P. K. Wu, M.D.,* C. Sicks, M.D., Ph.D.,* B. M. E. von Blomberg, Ph.D.,†
P. A. M. van Leeuwen, M.D., Ph.D.,*
S. Meijer, M.D., Ph.D.,* M. A. Cuesta, M.D., Ph.D.*



BMC Surg, 2015

The degree of local inflammatory response after colonic resection depends on the surgical approach: an observational study in 61 patients

Torben Glatz¹, Ann-Kathrin Lederer, Birte Kulemann, Gabriel Seifert, Philipp Anton Holzner, Ulrich Theodor Hopt, Jens Hoepfner and Goran Marjanovic



La laparoscopia
nelle resezioni
coliche



Riduce significativamente la
risposta infiammatoria locale e
sistemica

Tecniche Chirurgiche Mininvasive



↓
Risposta infiammatoria,
neuroendocrina e
metabolica al trauma
chirurgico

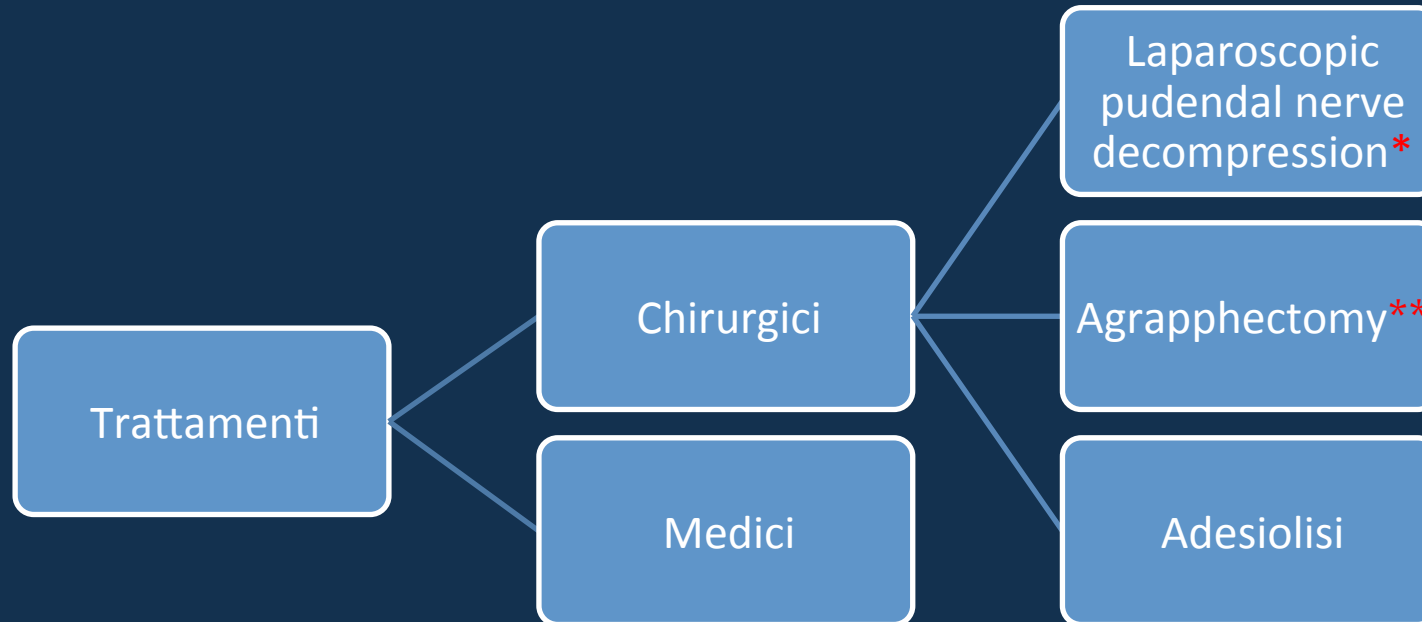
↑
Precisione nella
definizione dei dettagli
anatomici con riduzione
di lesioni nervose

	Prior to surgery	1st postoperative day	2nd postoperative day
Insulin			
LC (n=14)	14.4±2.1	16.1±2.8	14.6±2.5
OC (n=12)	17.6±2.1	17.2±3.4	12.8±0.9*
GH			
LC	1.0±0.2	2.7±1.0*	1.5±0.5*
OC	1.8±0.4	3.4±1.5*	2.2±0.9
Cortisol			
LC	0.4±0.01	0.5±0.11*	0.74±0.05*
OC	0.71±0.15	1.1±0.25*	0.89±0.02*

*P<0.05, vsOC †P<0.05, vs the preoperative period.

DOLORE POSTOPERATORIO CRONICO

Trattamenti proposti



** Postoperative complications after procedure for prolapsed hemorrhoids (PPH) and stapled transanal rectal resection (STARR) procedures

*

Surg Endosc (2014) 28:925-932
DOI 10.1007/s00464-013-3248-1

M. Pescatori • G. Gagliardi

Tech Coloproctol (2008)

Laparoscopic pudendal nerve decompression and transposition combined with omental flap protection of the nerve (Istanbul technique): technical description and feasibility analysis
Persistent anal and pelvic floor pain after PPH and STARR: surgical management of the fixed scar staple line

Tibet Erdogru • Egemen Avci • Murat Akand

Claudia Menconi¹ • Bernardina Fabiani¹ • Iacopo Gianì¹ • Jacopo Martellucci² • Gianluca Toniolo¹ • Gabriele Naldini¹

Conclusioni

- ❁ *Il dolore postoperatorio cronico rappresenta un problema rilevante sia da un punto di vista clinico che economico*
- ❁ *Assenza di sistemi di misurazione oggettivi e ben riproducibili con grosse difficoltà nel confronto dei risultati*
- ❁ *La pressante necessità di minor dolore e di migliori risultati estetici ha spinto verso lo sviluppo di nuove tecniche chirurgiche*
- ❁ *Le tecniche chirurgiche mininvasive hanno sicuramente ridotto l'incidenza del dolore postoperatorio attraverso il minor trauma chirurgico e la magnificazione delle immagini*
- ❁ *Adeguate selezione dei pazienti e del tipo di procedura chirurgica*

A black and white photograph capturing a close-up of a runner's legs in motion on a track. The runner is wearing dark shorts and a dark top. The track surface is visible with white lane markings. A long, dark shadow of the runner is cast onto the track, extending from the lower right towards the upper left. The word "Grazie" is overlaid in a bright green, serif font on the lower left side of the image.

Grazie