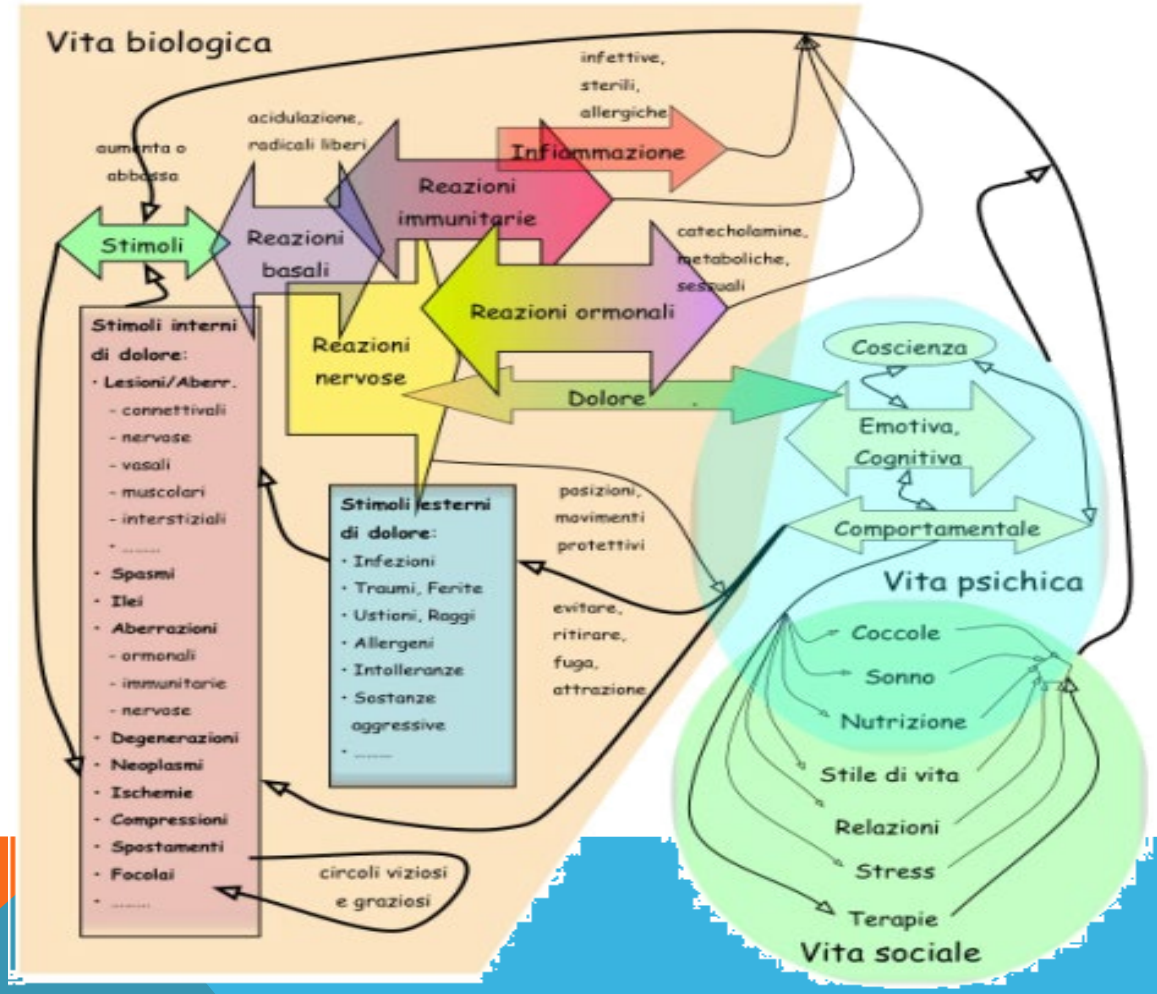
III CONGRESSO NAZIONALE - SI-GUIDA
ROMA 16-18 SETTEMBRE 2021

La prevenzione farmacologica e non farmacologica del dolore postoperatorio persistente

M.C. Pace


2020 GLOBAL YEAR FOR THE
PREVENTION
OF PAIN

IL DOLORE


Vita biologica
infettive,
sterili,
allergiche
acidulazione,
radicali liberi
aumenta o
abbassa
Infiammazione
Reazioni
immunitarie
Stimoli
Reazioni
basali
catecholamine,
metaboliche,
sessuali
Reazioni ormonali
Reazioni
nervose
Dolore
Stimoli interni
di dolore:
· Lesioni/Aberr.
- connettivali
- nervose
- vasali
- muscolari
- interstiziali
· .....
· Spasmi
· Ilei
· Aberrazioni
- ormonali
- immunitarie
- nervose
· Degenerazioni
· Neoplasmi
· Ischemie
· Compressioni
· Spostamenti
· Focolai
· .....
Stimoli esterni
di dolore:
· Infezioni
· Traumi, Ferite
· Ustioni, Raggi
· Allergeni
· Intolleranze
· Sostanze
aggressive
· .....
posizioni,
movimenti
protettivi
evitare,
ritirare,
fuga,
attrazione
circoli viziosi
e graziosi
Coscienza
Emotiva,
Cognitiva
Comportamentale
Vita psichica
Coccole
Sonno
Nutrizione
Stile di vita
Relazioni
Stress
Terapie
Vita sociale

Epidemiologia poco studiata
quindi
SCARSA CAPACITA' DI PREVENZIONE

Acute and Perioperative
Research Paper

OPEN

PAIN REPORTS®

Women report higher pain intensity at a lower level of inflammation after knee surgery compared with men

Nina Solheim[a,e], Simon Östlund[b], Torsten Gordh[c], Leiv Arne Rosseland[d,e,*]

Introduction and Objectives: We previously found that women report more pain after knee arthroscopic procedures than men. It remains unclear whether this is due to different biochemical responses or nociceptive mechanisms.

Conclusion: Acute pain after knee arthroscopy was more intense in women, but pro-inflammatory biomarkers and MMP-10 were higher in men. Further knowledge of cytokine function is required before concluding that the disparities in biomarker expression are clinically unimportant. The similar biochemical signaling between sexes suggests that central mechanisms are of greater importance in sex-specific joint pain perception.

CHILDREN DILEMMA

Neuroscience 338 (2016) 63–80

In conclusion, studies about experimental and chronic pain in children highlight developmentally regulated sex-differences in pain responses that are similar to the ones found in adults. Overall, post-pubescent girls appear to be more sensitive to pain and more likely to develop chronic pain states. The emerging of sex-specificity matches with the time of puberty, when the hormonal state of both girls and boys is subjected to strong adjustment. The mechanism behind these specificities could then rely, at least partly, on a direct effect of sex-hormones on the ascending nociceptive pathways, and/or to a more cognitive explanation, resulting in a different emotional response to pain.

CHILDREN DILEMMA

As for adults, children develop different strategies to cope with pain; girls are apparently more likely to seek social support to friends and family (Lynch et al., 2007) and more likely to respond with catastrophizing (Schmitz et al., 2013), whereas boys preferentially engage in alternative behavior and other activities (Lynch et al., 2007).

Neuroscience 338 (2016) 63–80

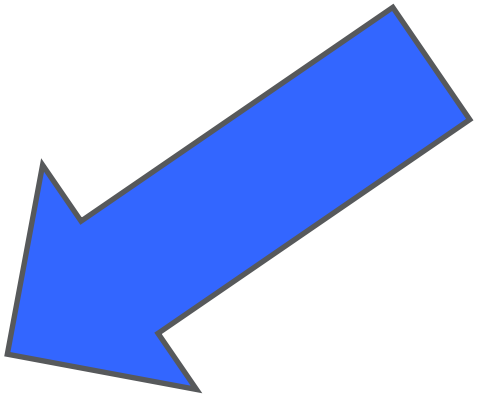
Biennial Review of Pain

PAIN

Transition from acute to chronic pain after surgery

Patricia Lavand'homme

For several years, CPSP has been assessed in adult hospitalized patients undergoing major surgical procedures such as thoracic surgery or limb amputation. Recently, orthopedic procedures and specifically joint replacements have been considered as a major risk for development of CPSP.[13,37] The volume of knee and hip arthroplasties is growing because the population is growing older and inflammatory diseases as well as obesity are becoming more frequent. Although outcomes in terms of pain relief and mobility are highly successful for most patients undergoing joint arthroplasty, 20% of them will develop CPSP after knee arthroplasty and 10% after hip arthroplasty.[33] The intensity of CPSP is greater after joint arthroplasty than after visceral or gynecological surgery.[13]



volume of surgeries is increasing worldwide,[*] the occurrence of CPSP has not really decreased over the years because preventive strategies are not clearly defined and thereby not applied in clinical practice, in contrast to the progress made in basic research in the

EJA

Eur J Anaesthesiol 2016; **33:**160–171

REVIEW

Current issues in postoperative pain management

Narinder Rawal

report were absence of pain assessment in 34% of institutions, absence of documentation in 56% of institutions and no written protocols in 75% of institutions.[6] A similarly disappointing picture emerged from a recent US survey of 301 hospitals (101 teaching hospitals). There were no written protocols in 45% of hospitals, and intravenous patient-controlled analgesia (PCA) was the most common method to treat pain. Interestingly, this was

Deborah J. Culley, M.D., Editor

Persistent Postsurgical Pain

Pathophysiology and Preventative Pharmacologic Considerations

sequences. Persistent postoperative pain has been defined by the International Association for the Study of Pain as a clinical discomfort that lasts more than 2 months postsurgery without other causes of pain such as chronic infection or pain from a chronic condition preceding the surgery.[6] According to the

DOLORE PERSISTENTE POSTOPERATORIO

- ✓ Spesso indipendente dal tipo di chirurgia
- ✓ Anche per procedure mini invasive
- ✓ Componente neuropatica almeno nel 35% dei casi
- ✓ E' un importante problema anche nei bambini
- ✓ Fortunatamente l'incidenza e l'intensità decrescono nel tempo
- ✓ "Solo" nel 3% dei casi il dolore persiste dopo l 12 mesi

Procedure-specific Pain Management

The Road to Improve Postsurgical Pain Management?

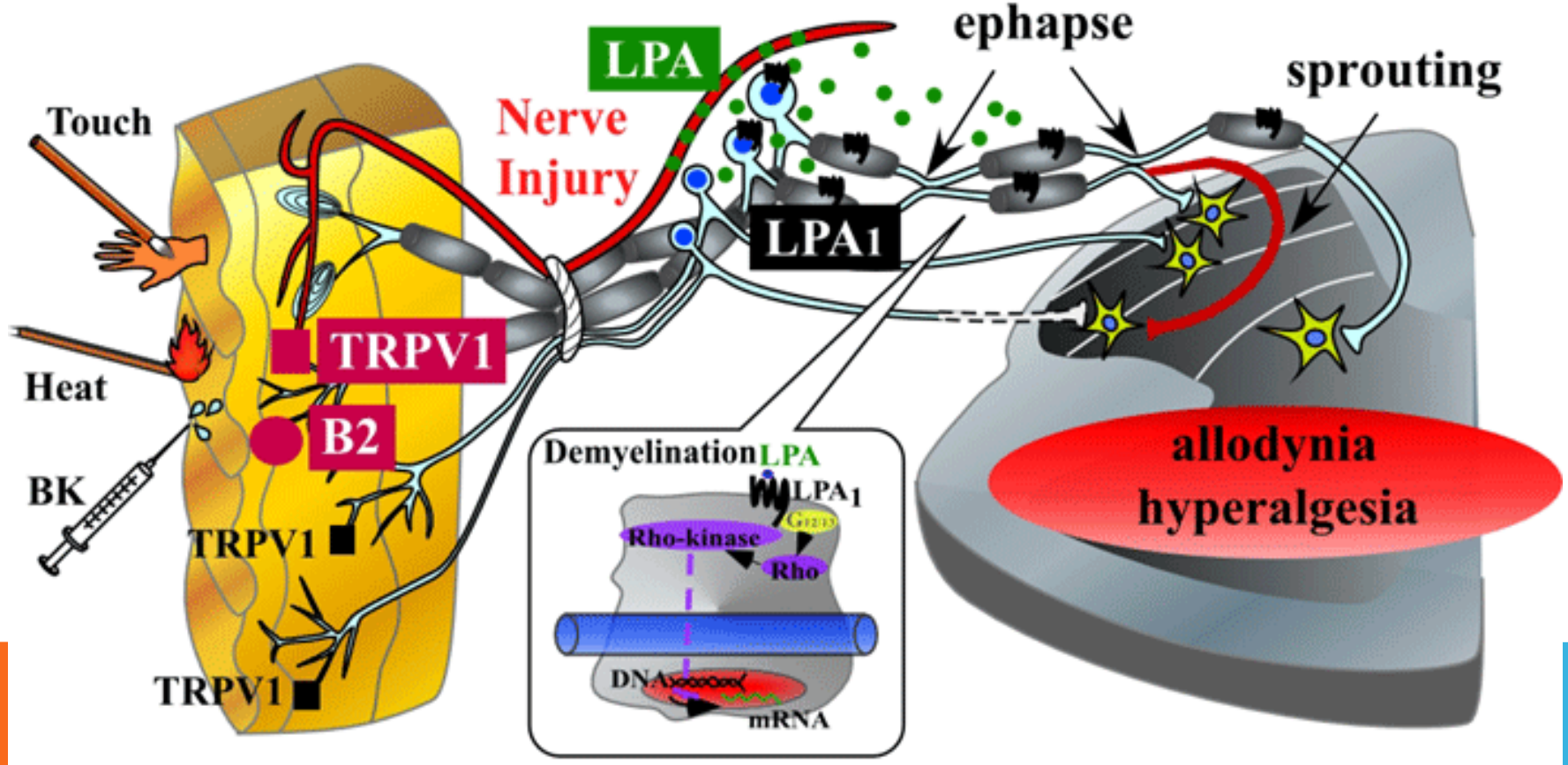
"Surprisingly, … "minor" surgical procedures were associated with high pain intensities….the most likely is that patients undergoing the(se) procedures that have the reputation of being less painful received inadequate pain relief"

"Surprisingly, "minor" surgical procedures were associated with high pain intensities …

… procedures that have the reputation of being less painful received inadequate pain relief"

Editorial. Anesthesiology 2013;118:780-2

Neuropathic pain model



Inoue M et al. *Nature Med.* 2004, 10, 712-718.

FATTORI DI RISCHIO FONDAMENTALI

Non c'è evidenza sui fattori genetici anche se sembrerebbe esserci un legame tra polimorfismi genici e sensibilità

1) Intensità del dolore acuto postoperatorio (ortopedia)

2) Presenza di dolore preoperatorio anche di altro tipo (fibromialgia,, LBP, emicrania etc)

3) Distress psicologico

CONTROLLO DEL DOLORE POSTOPERATORIO (caratteristiche)

IDENTIFICAZIONE DEI PAZIENTI A RISCHIO (30%)

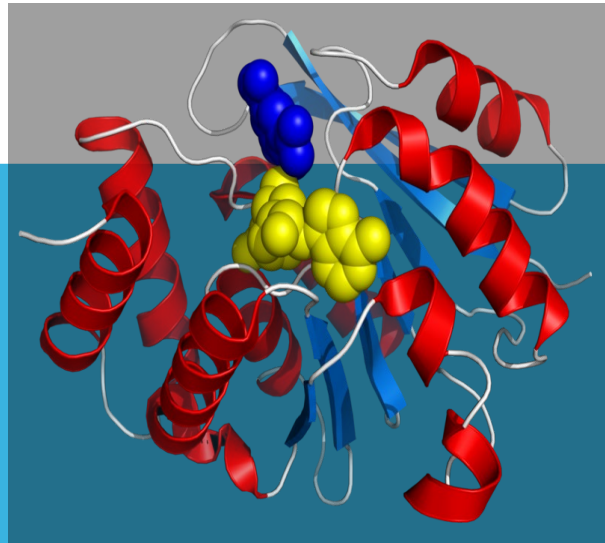
Pain & Relief

Carvalho, J Pain Relief 2012, 1:4
http://dx.doi.org/10.4172/2167-0846.1000e111

Genetics of Human Pain Sensitivity

association between genotype and phenotype [12]. Studies have concentrated on the role of single nucleotide polymorphisms (in particular, μ-opioid receptor gene and COMT Val158Met genotype) to explain postoperative pain responses [12]. In the future, candidate gene studies and genome-wide association studies may improve our understanding of the genetic component of postoperative pain.

genetic tests. Predicting individual's postoperative pain experience prior to surgery will facilitate the creation of individualized pain treatment protocols that may significantly improve postoperative pain management for all patients undergoing surgery in the future.



EJP
European Journal of Pain

ORIGINAL ARTICLE

Preoperative sleep quality predicts postoperative pain after planned caesarean delivery

S. Orbach-Zinger[1,*], S. Fireman[1,*], A. Ben-Haroush[2], T. Karoush[1], Z. Klein[1], N. Mazarib[1], A. Artyukh[1], R. Chen[2], A. Ioscovich[3], L.A. Eidelman[1], R. Landau[4]

1 Department of Anesthesia, Rabin Medical Center, Beilinson Hospital, Petach Tikvah, Israel
2 Department of Obstetrics and Gynecology, Rabin Medical Center, Beilinson Hospital, Petach Tikvah, Israel
3 Department of Anesthesia, Shaare Zedek Medical Center, Hebrew University, Jerusalem, Israel
4 Department of Anesthesia, Columbia University College of Physicians and Surgeons, New York, USA

	Good sleepers (PSQI ≤5) (n = 78)	Poor sleepers (PSQI >5) (n = 167)	p Value
STAI score (0–80)	47.4 ± 6.3	47.1 ± 6.2	0.66
TRAI score (0–80)	44.0 ± 5.3	44.0 ± 5.8	0.98
PCS score (0–52)	6.4 ± 7.3	10.2 ± 10.7	0.006*
Women with pre-existing anxiety disorder (N = 4)	2 (2.6%)	2 (1.2)	0.43

	Good sleep (PSQI ≤5) (N = 78)	Poor sleep (PSQI >5) (N = 167)	p Value
Average pain at rest (VNPS 0–100)	8.0 ± 17.8	12.8 ± 23.3	0.11
Average pain upon movement (VNPS 0–100)	18.9 ± 22.1	27.1 ± 27.7	0.02
Average uterine cramping (VNPS 0–100)	9.6 ± 19.7	10.4 ± 20.0	0.58
Peak pain at rest (VNPS 0–100)	17.7 ± 22.6	22.7 ± 29.6	0.19
Peak pain upon movement (VNPS 0–100)	36.2 ± 25.6	46.7 ± 28.8	0.006*
Peak uterine cramping (VNPS 0–100)	21.8 ± 25.6	23.8 ± 29.2	0.78
Number of women requesting additional analgesia for breakthrough pain	22 (28.2%)	73 (43.7%)	0.02

Results: Seventy-eight of 245 women reported good sleep quality (31.2%; average PSQI 3.5 ± 1.2) and 167 poor sleep quality (68.2%; average PSQI 16.0 ± 3.4; $p < 0.001$). Women with poor sleep quality had significantly higher peak pain scores upon movement (46.7 ± 28.8 vs. 36.2 ± 25.6, respectively; $p = 0.006$). With multivariable logistic regression analysis, poor sleep quality significantly increased the risk for severe peak pain upon movement (VNPS ≥70; OR 2.64; 95% CI 1.2–6.0; $p = 0.02$).

Significance: Multiple studies have evaluated predictors for severe acute pain after caesarean delivery that may be performed in a clinical setting, however, sleep quality prior to delivery has not been included in predictive models for post-caesarean pain. The PSQI questionnaire, a simple test to administer preoperatively, identified that up to 70% of women report poor sleep quality before delivery, and poor sleep quality was associated with increased post-caesarean pain scores and analgesic intake, indicating that PSQI could help identify preoperatively women at risk for severe pain after caesarean delivery.

EJA

ESA Clinical Trial Network

Eur J Anaesthesiol 2015; **32**:725–734

ORIGINAL ARTICLE

Chronic postsurgical pain in Europe

An observational study

Table 3 Univariate analysis of risk factors of moderate to severe chronic postsurgical pain at 6 and 12 months

	Six months odds ratio (95% CI)	*P*	Twelve months odds ratio (95% CI)	*P*
Sex (female versus male)	0.70 (0.49 to 0.99)	0.045	0.88 (0.57 to 1.37)	0.58
Age (per year increment)	1.00 (0.99 to 1.01)	0.97	1.00 (0.99 to 1.02)	0.53
Model 1: surgery by organ	Not shown	<0.001	Not shown	0.003
Model 2: laparoscopic versus open	0.85 (0.57 to 1.27)	0.43	0.73 (0.44 to 1.21)	0.22
Model 3: orthopaedic, visceral or gynaeco-obstetrical	–	<0.001	–	0.001
Orthopaedic versus visceral	3.77 (2.39 to 4.86)	<0.001	2.40 (1.48 to 3.90)	<0.001
Gynaeco-obstetrical versus visceral	1.24 (0.81 to 1.89)	0.318	0.79 (0.47 to 1.32)	0.37
Model 4: orthopaedic versus other procedures	3.41 (2.39 to 4.86)	<0.001	2.67 (1.73 to 4.11)	<0.001
Chronic preoperative pain (yes/no)	2.74 (1.94 to 3.86)	<0.001	2.63 (1.72 to 4.00)	<0.001
Preoperative opioid use (yes/no)	2.19 (0.99 to 4.85)	0.053	2.18 (0.86 to 5.54)	0.101
Anxiety score (per each point on NRS scale)	1.06 (0.99 to 1.13)	0.088	1.14 (1.06 to 1.23)	0.001
Worst postoperative pain score (per each point on NRS scale)	1.18 (1.10 to 1.26)	<0.001	1.14 (1.06 to 1.23)	0.002
Percentage of time in severe pain (10% increment)	1.28 (1.19 to 1.37)	<0.001	1.32 (1.21 to 1.44)	<0.001
Ketamine intraoperative (yes/no)	0.80 (0.45 to 1.41)	0.43	0.67 (0.34 to 1.32)	0.246
Anaesthesia: RA/GA/combination RA and GA use: RA versus GA or combination GA and RA	Not shown	0.052	Not shown	0.449

The univariate analysis was performed on 13 different items. The surgery was classified according to four models: model 1: organ-based type of surgery; model 2: laparoscopic (i.e. laparoscopic cholecystectomy, hysterectomy, colectomy, hernia repair, laparoscopy and knee arthroscopy) versus open type of surgery; model 3: orthopaedic, gynaeco-obstetrical or visceral procedures; and model 4: orthopaedic surgery versus other procedures. The definitions of 'Chronic preoperative pain' and 'Percentage of time in severe pain' can be found in Materials and methods. The results are presented as odds ratios (95% CI). CI, confidence interval; GA, general anaesthesia; RA, regional anaesthesia.

EJA

Eur J Anaesthesiol 2015; **32**:725–734

ORIGINAL ARTICLE

Chronic postsurgical pain in Europe

An observational study

Table 4 Multivariate analysis of risk factors of moderate to severe chronic postsurgical pain at 6 and 12 months

	Odds ratio (95% CI)	*P*
At 6 months		
Sex (female versus male)	0.99 (0.66 to 1.48)	0.97
Model 4: orthopaedic versus other procedures	2.39 (1.53 to 3.75)	<0.001
Chronic preoperative pain (yes/no)	1.57 (1.04 to 2.37)	0.034
Worst postoperative pain score (NRS)	1.00 (0.92 to 1.10)	0.99
Percentage of time in severe pain	1.24 (1.13 to 1.37)	<0.001
At 12 months		
Model 4: orthopaedic versus other procedures	1.86 (1.08 to 3.18)	0.024
Chronic preoperative pain (yes/no)	1.89 (1.12 to 3.18)	0.017
Anxiety Score (NRS)	1.06 (0.97 to 1.16)	0.208
Worst postoperative pain score (NRS)	0.93 (0.83 to 1.05)	0.230
Percentage of time in severe pain	1.30 (1.16 to 1.46)	<0.001

The variables associated with CPSP in the univariate analysis at 6 and 12 months were evaluated in a multivariate analysis at 6 and 12 months, respectively. The definitions of 'Chronic preoperative pain' and 'Percentage of time in severe pain' can be found in Materials and methods. The results are presented as odds ratios (95% CI). The Hosmer–Lemeshow test showed good calibration for the multivariate analysis at 6 ($\chi^2 = 6.96$, $P = 0.541$) and 12 months ($\chi^2 = 7.89$, $P = 0.444$).

ESA Clinical Trial Network

EJA European Journal of Anaesthesiology

Dolore grave (definito come punteggio sulla Numeric Rating Scale ≥6) è stato riportato dal 2,9% e 2,2% dei pazienti a sei e 12 mesi, rispettivamente. Inoltre, a 12 mesi, i segni di dolore neuropatico sono stati registrati nel 39,2% dei pazienti con dolore moderato e nel 57,1% dei pazienti con dolore postoperatorio cronico grave. Non a caso, l'effetto funzionale del dolore sulle attività è stato visto aumentare con la gravità del dolore postoperatorio cronico ($p<0,001$).

L'analisi multivariata ha identificato la chirurgia ortopedica, il dolore cronico preoperatorio e la percentuale di tempo passato con dolore grave 24 ore dopo l'intervento chirurgico, come fattori predittivi per il dolore postoperatorio cronico.

Inoltre, un aumento del 10% della percentuale di tempo passata con dolore grave il giorno 1 è stato associato ad un aumento del 30% di incidenza del dolore post-chirurgico cronico a un anno dopo l'intervento chirurgico.


IMPREVISTI
VIALE
DEI GIARDINI
L. 35.000
STAZIONE EST
L. 20.000

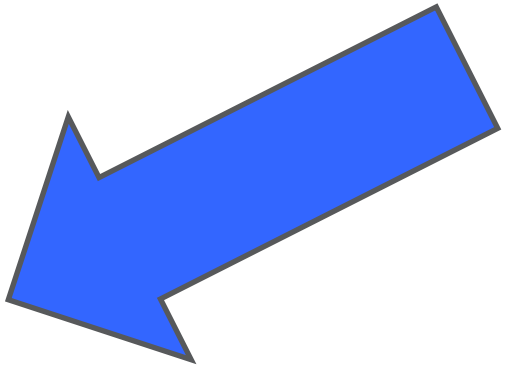
FATTORI DI RISCHIO

Pazienti che facevano uso di farmaci oppioidi nel preoperatorio di intervento di protesi di ginocchio, riportavano maggior dolore nel postoperatorio

L'analgesia con oppioidi non è particolarmente efficiente nel dolore evocato con il movimento e neanche nel dolore neuropatico

ZONA GRIGIA

- Dimissioni
- Casa
- Riabilitazione



"TRANSITIONAL PAIN UNITS" come parte integrante della Medicina perioperatoria

SIAARTI

PRO VITA CONTRA DOLOREM SEMPER

SIAARTI GUIDELINES

Therefore, the treatment of POP represents a high-priority institutional objective, as well as an integral part of the treatment plan for «perioperative disease», which includes analgesia, early mobilization, early enteral nutrition and active physiokinesitherapy (Level A).

Dati di fatto

— there is clear evidence for the potential of simple techniques such as continuous infiltration or a single-shot peri-incision with local anesthetic;[71]


SUCCESS
FAILURE
DECISION

Transition from acute to chronic pain after surgery

Paul Glare, Karin R Aubrey, Paul S Myles

Panel 1: Risk factors for chronic postsurgical pain

Demographics and lifestyle
- Age
- Gender
- Marital status or living arrangements
- Education level
- Employment status
- Compensation status
- Obesity
- Smoking

Genetic
- Candidate gene mutations associated with increased pain (eg, *COMT*, *OPRM1*, and *GCH1*)

Clinical
- Surgical factors, including surgical technique (open *vs* laparoscopic), duration of surgery, type of anaesthesia (general *vs* regional), and perioperative
- Analgesic regimen (systemic *vs* spinal and pre-emptive); surgical complications and re-operating
- Medical comorbidities
- Previous disability or pain interference

Preoperative pain (area of operation or elsewhere)

Postoperative pain (intensity and duration)

Psychological
- Fear or anxiety
- Depression
- Pain catastrophising
- Other psychological issues (eg, vulnerability factors)

COMT=catechol-o-methyltransferase. *OPRM1*=opioid receptor mu 1. *GCH1*=guanosine-5'-triphosphate cyclohydrolase 1.

Prevention of transitional postsurgical pain and CPSP

Some CPSP risk factors are modifiable (eg, body-mass index, preoperative pain, and some comorbidities), especially if surgery is elective, whereas others (eg, demographics, genetics, and pain sensitivity) are not.

Potential role of a transitional pain clinic

A more pragmatic approach to prevention of CPSP has been the development of transitional pain clinics, which aim to overcome the disconnect between ward-based acute postoperative pain management and outpatient chronic pain management (figure 2). Such a comprehensive and integrated pain service can identify patients at risk of chronic pain through inpatient screening on the basis of established prognostic indicators.[3,46,53,99,54,55,117–120] A

Pain Physician 2019; 22:479-488 • ISSN 1533-3159

Narrative Review

Transition from Acute to Chronic Pain: Evaluating Risk for Chronic Postsurgical Pain

Gabriel Fregoso, MD, Annie Wang, MD, Kelly Tseng, MD, and [illegible] Wang, MD, PhD

facing a defined obstacle (22,38-41). Interventions that improve patient optimism and self-efficacy during the perioperative period while targeting psychosocial risk factors afford the most promising treatment of psychosocial stressors associated with CPSP development. Such interventions may include cognitive-behavioral therapy and other interventions that focus on enhancing coping skills (10,22). Recent studies have expanded current

Rabbitts et al. Trials (2021) 22:506
https://doi.org/10.1186/s13063-021-05421-3

Trials

STUDY PROTOCOL Open Access

A digital health peri-operative cognitive-behavioral intervention to prevent transition from acute to chronic postsurgical pain in adolescents undergoing spinal fusion (SurgeryPal™): study protocol for a multisite randomized controlled trial

Jennifer A. Rabbitts[1,2*], Chuan Zhou[3,4], Rocio de la Vega[5], Homer Aalfs[3], Caitlin B. Murray[2,3] and Tonya M. Palermo[2,3,4]

American Pain Society
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TREATMENT
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PUBLISHED BY ELSEVIER
The Journal of Pain, Vol 17, No 2 (February), 2016: pp 131-157
Available online at www.jpain.org and www.sciencedirect.com

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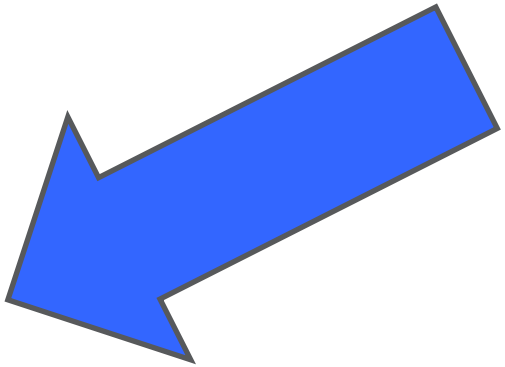

Table 3. Options for Components of Multimodal Therapy for Commonly Performed Surgeries

Type of Surgery	Systemic Pharmacologic Therapy	Local, Intra-articular or Topical Techniques*	Regional Anesthetic Techniques*	Neuraxial Anesthetic Techniques*	Nonpharmacologic Therapies‡
Thoracotomy	Opioids‡ NSAIDs§ and/or acetaminophen Gabapentin or pregabalin§ i.v. ketamine¶		Paravertebral block	Epidural with local anesthetic (with or without opioid), or intrathecal opioid	Cognitive modalities TENS
Open laparotomy	Opioids‡ NSAIDs§ and/or acetaminophen Gabapentin or pregabalin§ i.v. ketamine¶ i.v. lidocaine	Local anesthetic at incision i.v. lidocaine infusion	Transversus abdominis plane block	Epidural with local anesthetic (with or without opioid), or intrathecal opioid	Cognitive modalities TENS
Total hip replacement	Opioids‡ NSAIDs§ and/or acetaminophen Gabapentin or pregabalin§ i.v. ketamine¶	Intra-articular local anesthetic and/or opioid	Site-specific regional anesthetic technique with local anesthetic	Epidural with local anesthetic (with or without opioid), or intrathecal opioid	Cognitive modalities TENS
Total knee replacement	Opioids‡ NSAIDs§ and/or acetaminophen Gabapentin or pregabalin§ i.v. ketamine¶	Intra-articular local anesthetic and/or opioid	Site-specific regional anesthetic technique with local anesthetic	Epidural with local anesthetic (with or without opioid), or intrathecal opioid	Cognitive modalities TENS
Spinal fusion	Opioids‡ Acetaminophen‖ Gabapentin or pregabalin§ i.v. ketamine¶	Local anesthetic at incision		Epidural with local anesthetic (with or without opioid), or intrathecal opioid	Cognitive modalities TENS
Cesarean section	Opioids‡ NSAIDs§ and/or acetaminophen	Local anesthetic at incision	Transversus abdominal plane block	Epidural with local anesthetic (with or without opioid), or intrathecal opioid	Cognitive modalities TENS

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Use of Cognitive–Behavioral Modalities

Recommendation 9

- The panel recommends that clinicians consider the use of cognitive–behavioral modalities in adults as part of a multimodal approach (weak recommendation, moderate-quality evidence).

A number of cognitive–behavioral modalities have been evaluated as adjunctive treatments in patients who undergo surgery. These include guided imagery[11,58,119,174,186,229,286,287] and other relaxation methods,[44,60,86,89,106,107,119,204,229,256,304,305,308] hypnosis,[16,79,80,112,123,152,206,277]

Use of Local and/or Topical Pharmacological Therapies

Recommendation 20

- The panel recommends that clinicians consider surgical site–specific local anesthetic infiltration for surgical procedures with evidence indicating efficacy (weak recommendation, moderate-quality evidence).

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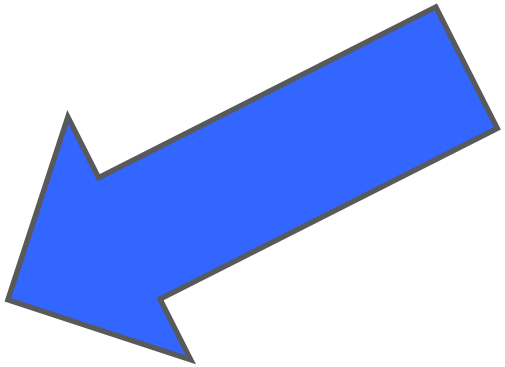
Guidelines on the Management of Postoperative Pain

Management of Postoperative Pain: A Clinical Practice Guideline From the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council

Roger Chou,* Debra B. Gordon,† Oscar A. de Leon-Casasola,‡ Jack M. Rosenberg,§ Stephen Bickler,¶ Tim Brennan,‖ Todd Carter,** Carla L. Cassidy,†† Eva Hall Chittenden,‡‡ Ernest Degenhardt,§§ Scott Griffith,¶¶ Renee Manworren,‖‖ Bill McCarberg,*** Robert Montgomery,††† Jamie Murphy,‡‡‡ Melissa F. Perkal,§§§ Santhanam Suresh,¶¶¶ Kathleen Sluka,‖‖‖ Scott Strassels,**** Richard Thirlby,†††† Eugene Viscusi,‡‡‡‡ Gary A. Walco,§§§§ Lisa Warner,¶¶¶¶ Steven J. Weisman,‖‖‖‖ and Christopher L. Wu‡‡‡



Recommendation 21

- The panel recommends that clinicians use topical local anesthetics in combination with nerve blocks before circumcision (strong recommendation, moderate-quality evidence).

In infants who undergo circumcision, evidence indi-

Transitioning to Outpatient Care

Recommendation 32

- The panel recommends that clinicians provide education to all patients (adult and children) and primary caregivers on the pain treatment plan including tapering of analgesics after hospital discharge (strong recommendation, low-quality evidence).

Research on methods and outcomes of discharge plan

Cerotti

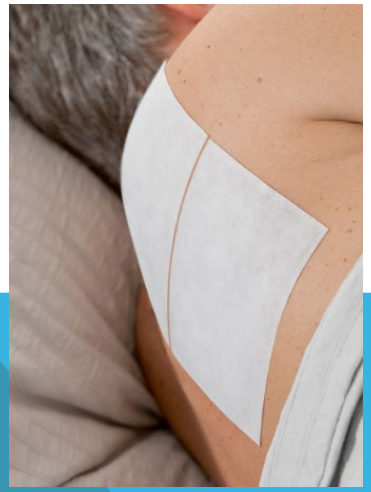
FANS

Capsaicina

Lidocaina cerotto 5%

Posologia e modo di somministrazione
Adulti ed anziani

L'area dolente deve essere ricoperta dal cerotto, applicato una volta al giorno per non più di 12 ore nell'arco delle 24 ore. Devono essere applicati solo i cerotti necessari per un trattamento efficace. Se necessario, il cerotto può essere tagliato con le forbici in parti più piccole prima di rimuovere la pellicola protettiva. In totale, non devono essere applicati contemporaneamente più di tre cerotti.



REVIEW ARTICLE

Deborah J. Culley, M.D., Editor

Persistent Postsurgical Pain

Pathophysiology and Preventative Pharmacologic Considerations

Philippe Richebé, M.D., Ph.D., Xavier Capdevila, M.D., Ph.D., Cyril Rivat, Ph.D.

- ✓ FANS, paracetamolo ed anti COX2
- ✓ Corticosteroidi anche intraop (desametasone 4-20 mg) anche per PONV
- ✓ Anestesia regionale: blocchi periferici
- ✓ Epidurale
- ✓ Infiltrazione della ferita chirurgica
- ✓ Ketamina (blocco dell'attività NMDA)
- ✓ Dexmedetomidine (ancora da studiare)

Complete surgical pain management

While opioids are often necessary to treat surgical pain, some patients end up feeling "stuck" on high-dose opioids. A complete pain management plan before, during, & after surgeries can minimize the need of opioids. Most patients need opioids only up to 4 weeks, rarely up to 12 weeks.

Before

Surgical Team, Pre-Op Clinic, & Pain Clinic optimize your physical & psychological conditions, as well as your medications

- Patient education & preparation
- Nerve treatment
- Coping & behavioral skills
- Medication optimization
- Smoking cessation
- Diabetes optimization

During

Surgical Team & Anesthesiology work together to reduce the body's inflammatory responses to the stress of surgery

- Minimize blood loss
- Local anesthetics
- IV lidocaine & IV ketamine
- Nerve catheter
- Epidural catheter
- Intrathecal single-shot

After

Immediately after surgery, opioid medications are warranted. To minimize opioid use, various non-opioid pain relief strategies are also employed

- Nerve catheter
- Epidural catheter
- IV lidocaine & ketamine
- Patient-controlled anesthesia (PCA)
- Non-opioid medications

Home

In the weeks after the hospital, we optimize recovery with non-opioid medications, & promote healing with nutrition and exercise

- Non-opioid medications
- Coping & behavioral skills
- Active physical therapy
- Mobilization
- Optimize nutrition
- Follow-up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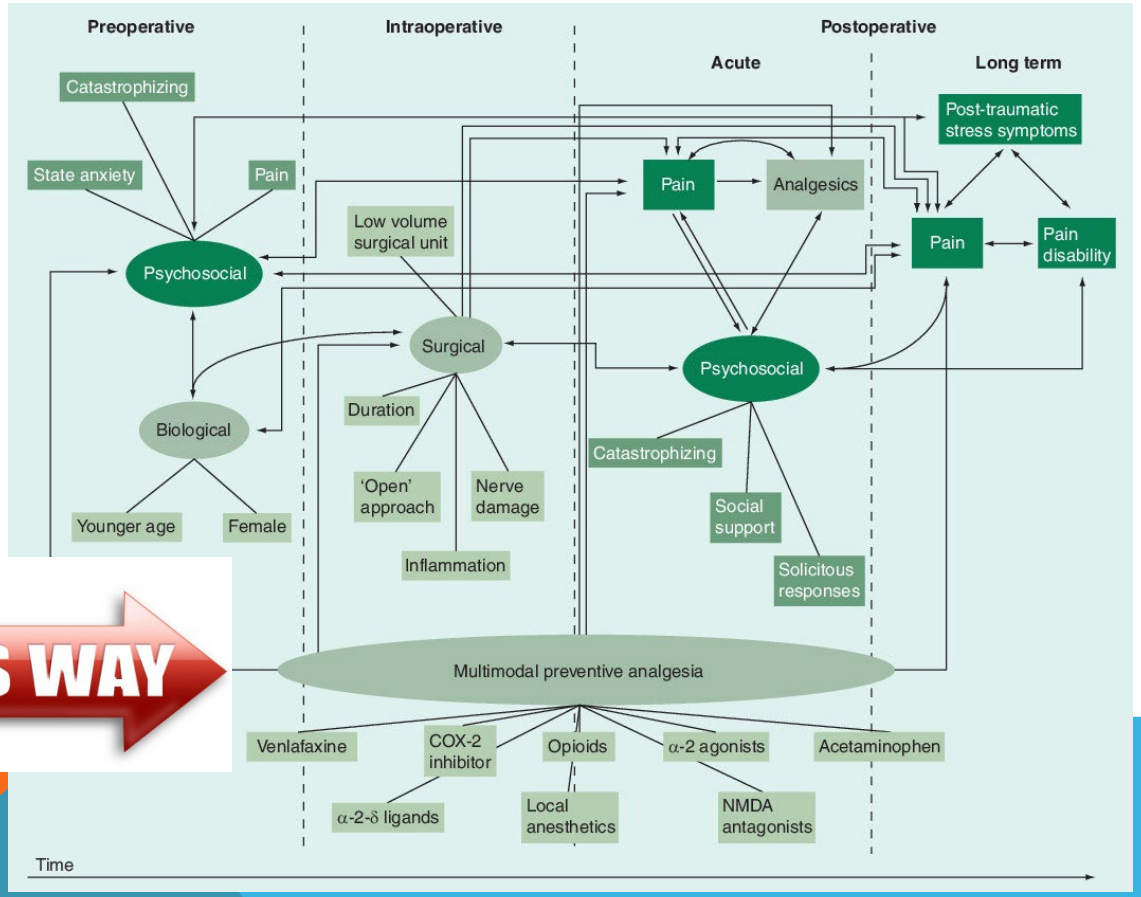

Joel Katz; Ze'ev Seltzer; *Expert Review of Neurotherapeutics* **2009,** 9, 723-744.

Include all patients after surgery

Include all types of surgery

Nurse service

Collaborate with surgeon

Procedure-specific protocols

Perioperative service – from preoperative evaluation to postoperative follow-up

“TRANSITIONAL PAIN CLINIC”

Evolution in perioperative pain management

- Selective patients
- Single discipline
- Single time frame (post-operative)
- Single modality
- Single protocol

- All patients
- Multi-disciplinary
- Perioperative (pre- & post-operative)
- Multi-modal
- Procedure-specific protocol

CAMBIARE IMPOSTAZIONE

Clet ha applicato degli sticker

sui cartelli della segnaletica stradale,

rispettandone sempre la leggibilità, ma

trasformandoli in simpatiche opere d'arte.

Cambiare linguaggio

"Vorrei che all'unilateralità del messaggio venisse sostituito il concetto di reversibilità: si aggiunge un nuovo significato alla prima, portando altri livelli di lettura "

- ✓ Multidisciplinarità
- ✓ Analgesia multimodale

Acute pain service → Perioperative pain service → Transitional service

CAMBIARE AZIONI

- ***Comunicazione collettiva***
- ***Creare dialogo***
- ***Fare squadra***

Formazione

AISD

L'Associazione Italiana per lo Studio del Dolore da più di 30 anni si occupa della malattia dolore, promuovendo la ricerca sui meccanismi fisiopatologici del dolore e sulle sindromi dolorose.

Per accelerare il processo di ricerca e migliorare la cura dei malati sono fondamentali la cooperazione interdisciplinare e l'aggiornamento di coloro che operano nella ricerca e nella cura

Grazie!