Update aktueller Schmerzmedikamente (ausser Opioide)

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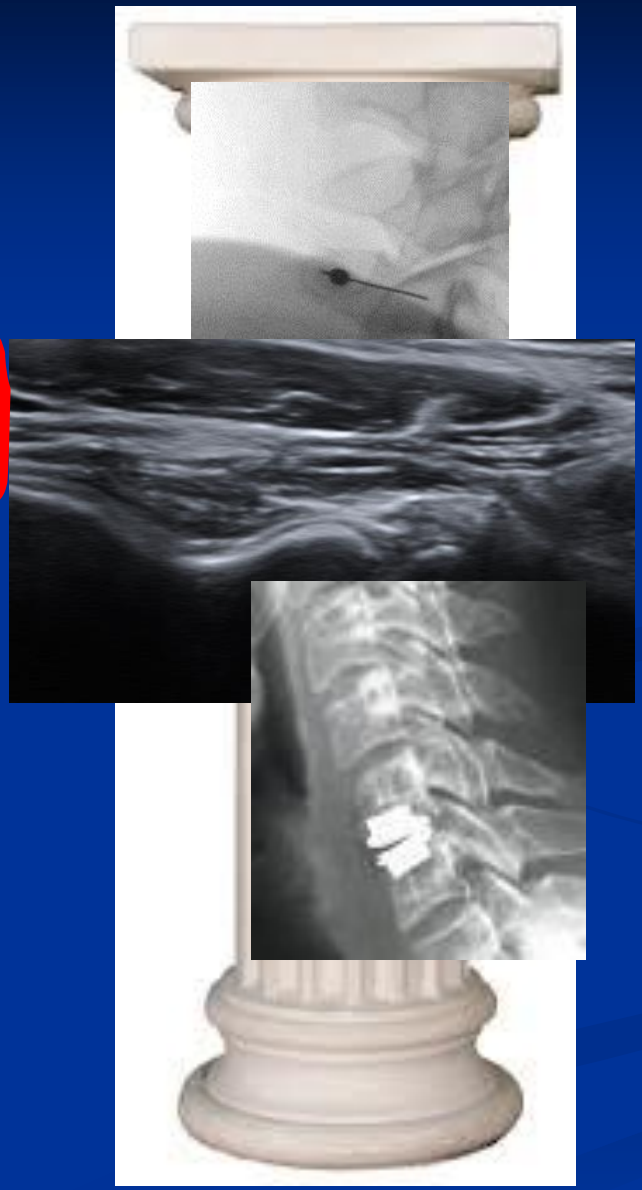
Multimodale Schmerztherapie

Pharmakologie



Interventionen

Patient

Landmark Review Article

The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

MEDICAL PROGRESS

Opioid Therapy for Chronic Pain

Jane C. Ballantyne, M.D., and Jianren Mao, M.D., Ph.D.

OPIUM IS A BITTER, BROWN, GRANULAR POWDER DERIVED FROM THE seedpod of the poppy (*Papaver somniferum*). People have used opium for the relief of pain and suffering for thousands of years. Before the 19th century, opium was cultivated and used chiefly in the Middle East, whereas in Europe and the United States it was a luxury available mainly to the elite. During the 19th century, several historical events conspired to make opium and other opioids more readily available. The production of opium increased rapidly, and after the morphine alkaloid was identified in 1806 pharmacologic production of opioid drugs began. Use of morphine-containing tinctures such as laudanum became commonplace, especially in the treatment of the "travails" and "boredom" of Victorian women. Morphine-containing cures for colic, diarrhea, dysmenorrhea, and other painful conditions were widely available and could be bought from doctors and pharmacists.

From the Pain Center, Department of Anesthesia and Critical Care, Massachusetts General Hospital and Harvard Medical School — both in Boston. Address reprint requests to Dr. Ballantyne at the Massachusetts General Hospital Pain Center, 15 Parkman St., WACC 333, Boston, MA 02114, or at jballantyne@partners.org.

N Engl J Med 2003;349:1943-53.

NEJM 2003

10 Jahre später...

IASP

PAIN® 153 (2012) 2303–2304

PAIN®

www.elsevier.com/locate/pain

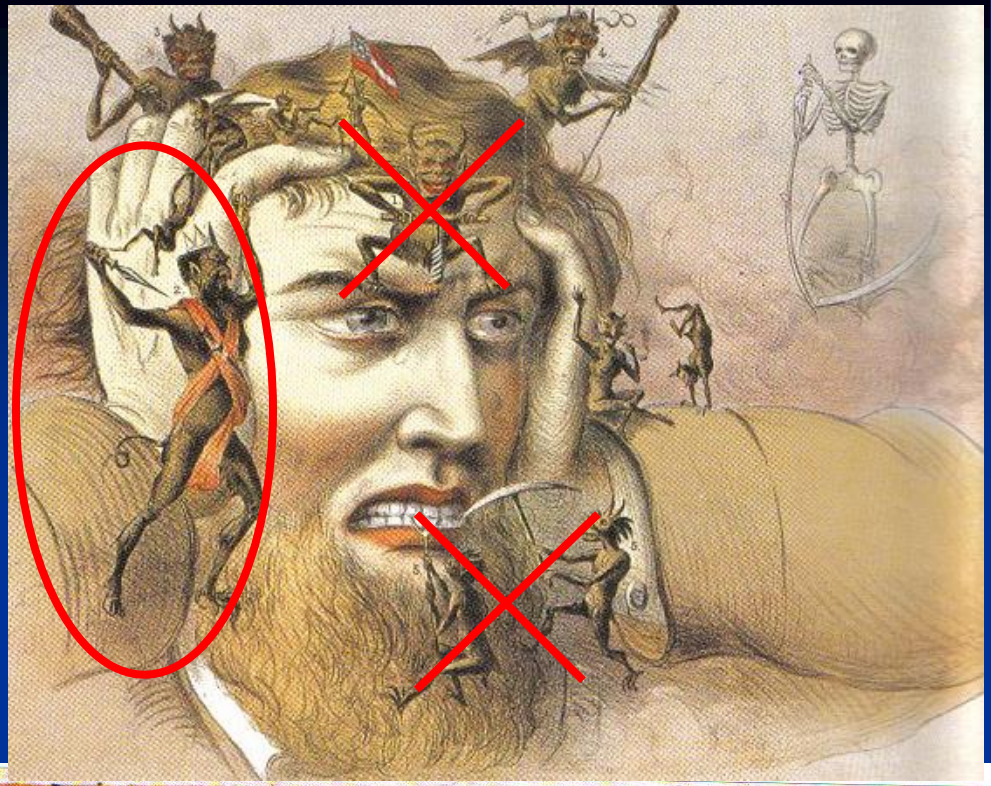
Commentary

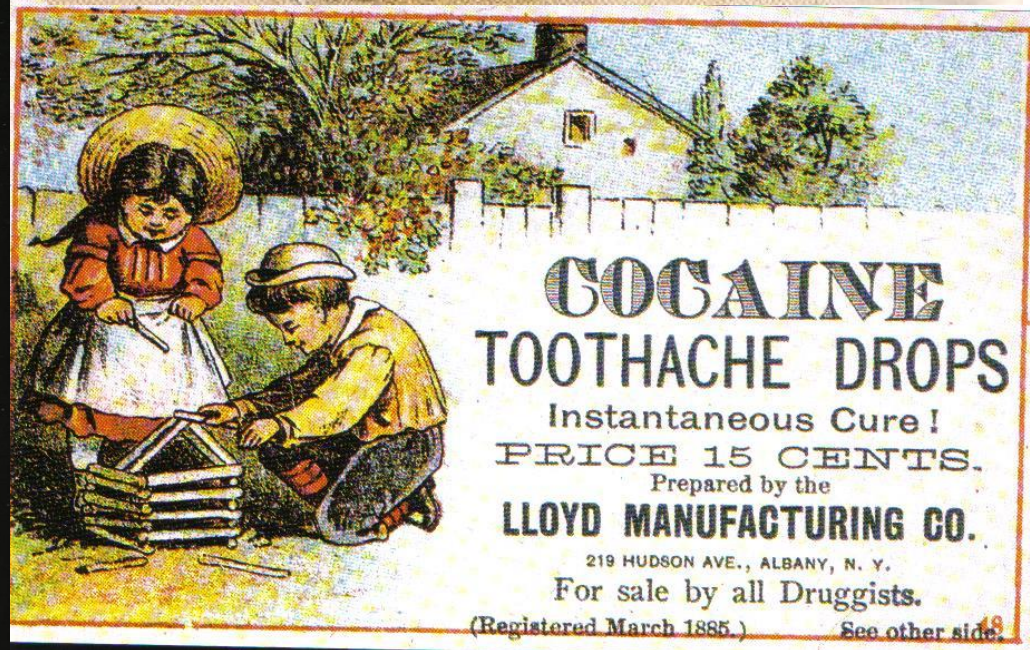
Chronic opioid therapy and its utility in different populations

- "These studies suggest that individuals who remain on opioids do so for complex reasons that may not simply relate to their pain intensity. Chronic pain is a growing problem for developed nations, but it seems that opioids are not the universal solution."

Jane C. Ballantyne

Aspirinflasche, 1899





Chronische Schmerzen und NNT/NNH Bsp Postzoster-Neuralgie

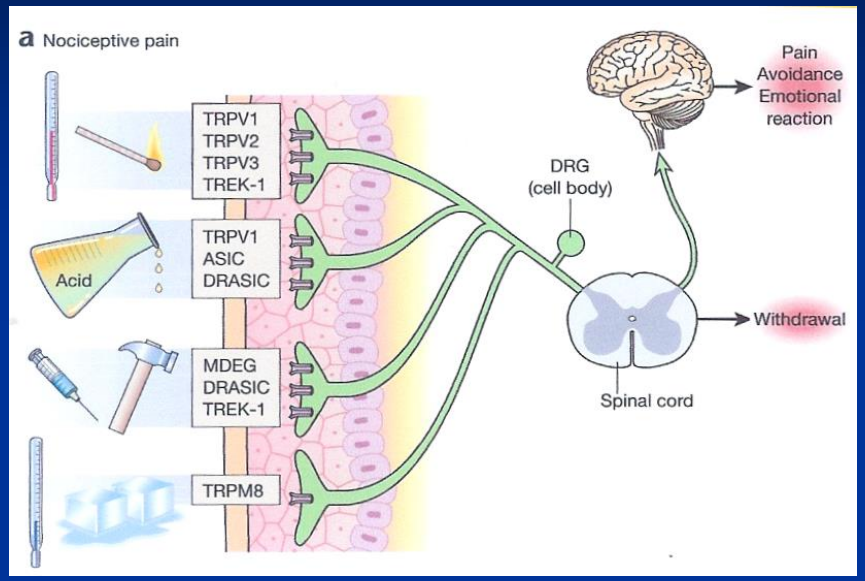
- Antidepressiva (z.B. Amitriptylin NNT 3, NNH 15)
- Antikonvulsiva (Pregabalin NNT 4, NNH 10, Valproat NNT 2.6, NNH ?)
- Opiate NNT 2.6, NNH 11

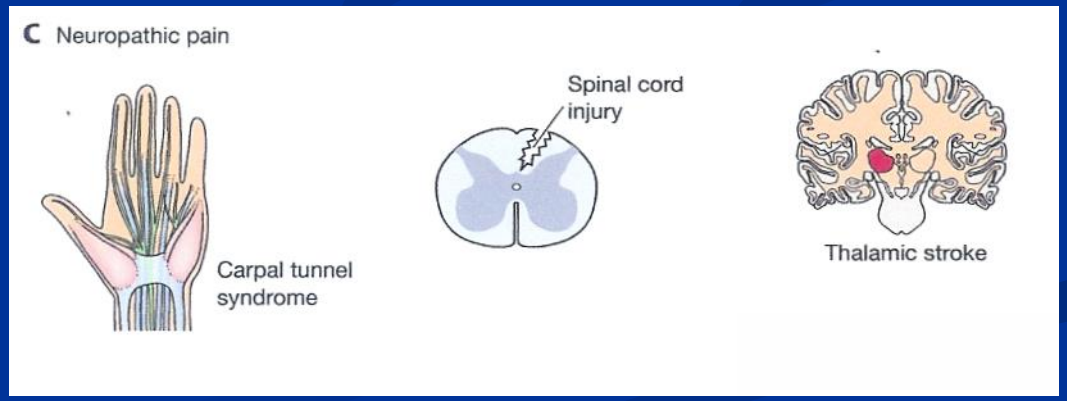
Finnerup et al. Pain 2010

Aber wie verbessern wir die NNT?

Schmerzphysiologie

Schmerzarten - Einteilungen





Scholz J, Woolf CJ.; Nat Neuroscience 2002

Beispiel: Nozizeptiver Schmerz

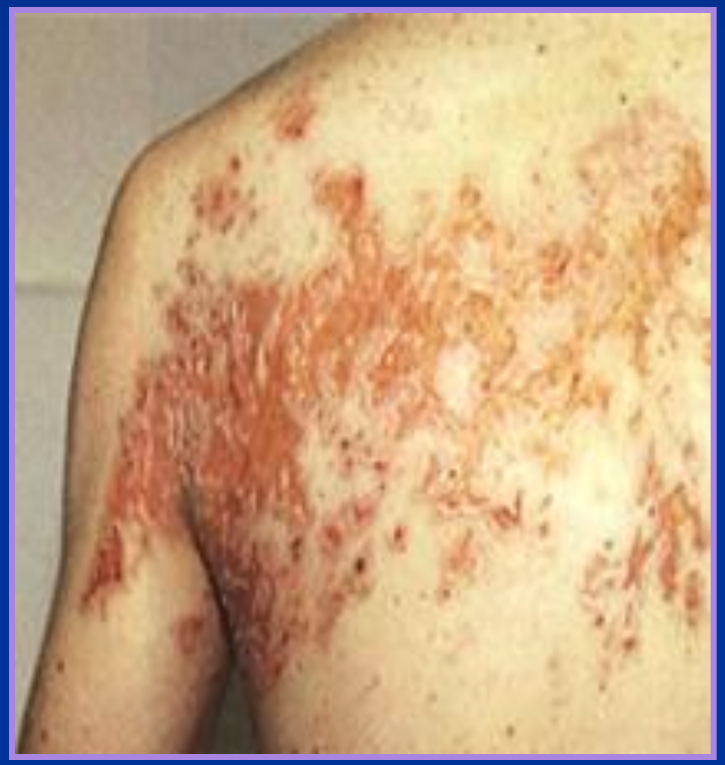
Nozizeptiver Schmerz

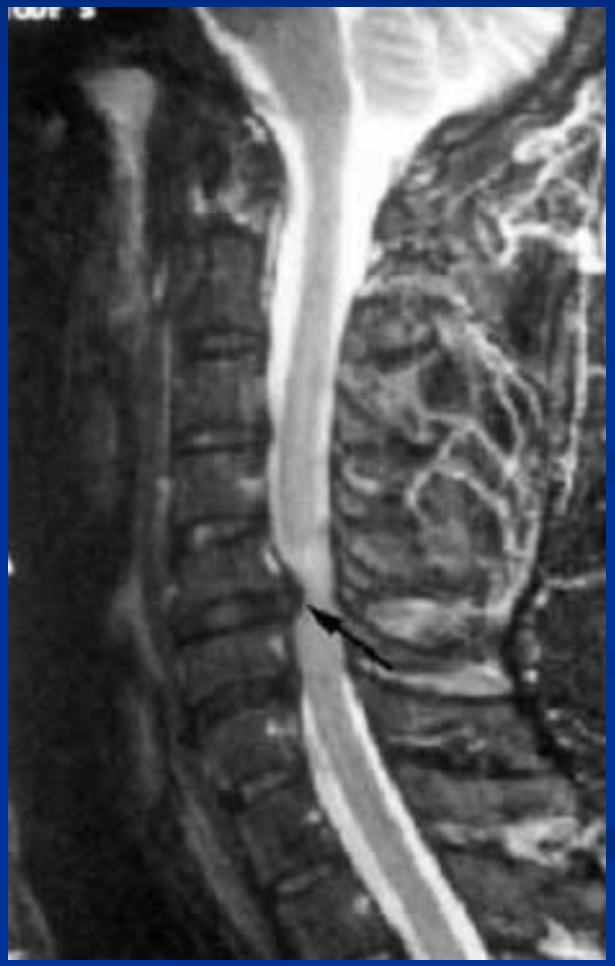
- NSAR und Coxibe gut wirksam
- Opioide gut wirksam

- Antikonvulsiva und Antidepressiva:

  "Jein"

Beispiele: Neuropathischer Schmerz





Neuropathischer Schmerz

- NSAR und Coxibe schlecht wirksam
- Opiate

  "Jein"

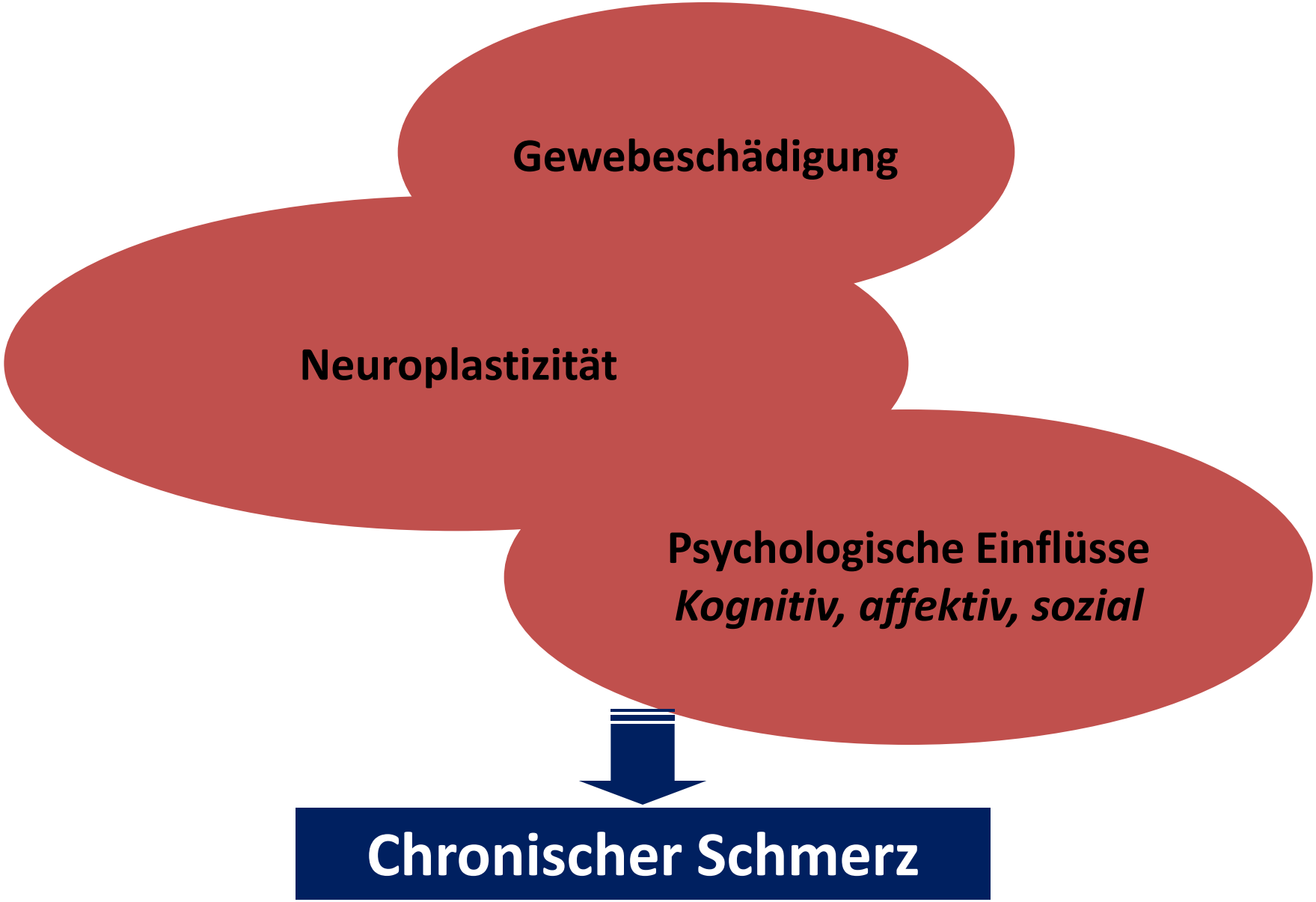
- Antikonvulsiva und Antidepressiva

  Ja, aber (das Problem der NNT)

Neuropathisch

Nozizeptiv

Zu trivial beim CHRONISCHEN Schmerz!


Gewebeschädigung
Neuroplastizität
Psychologische Einflüsse
Kognitiv, affektiv, sozial
Chronischer Schmerz

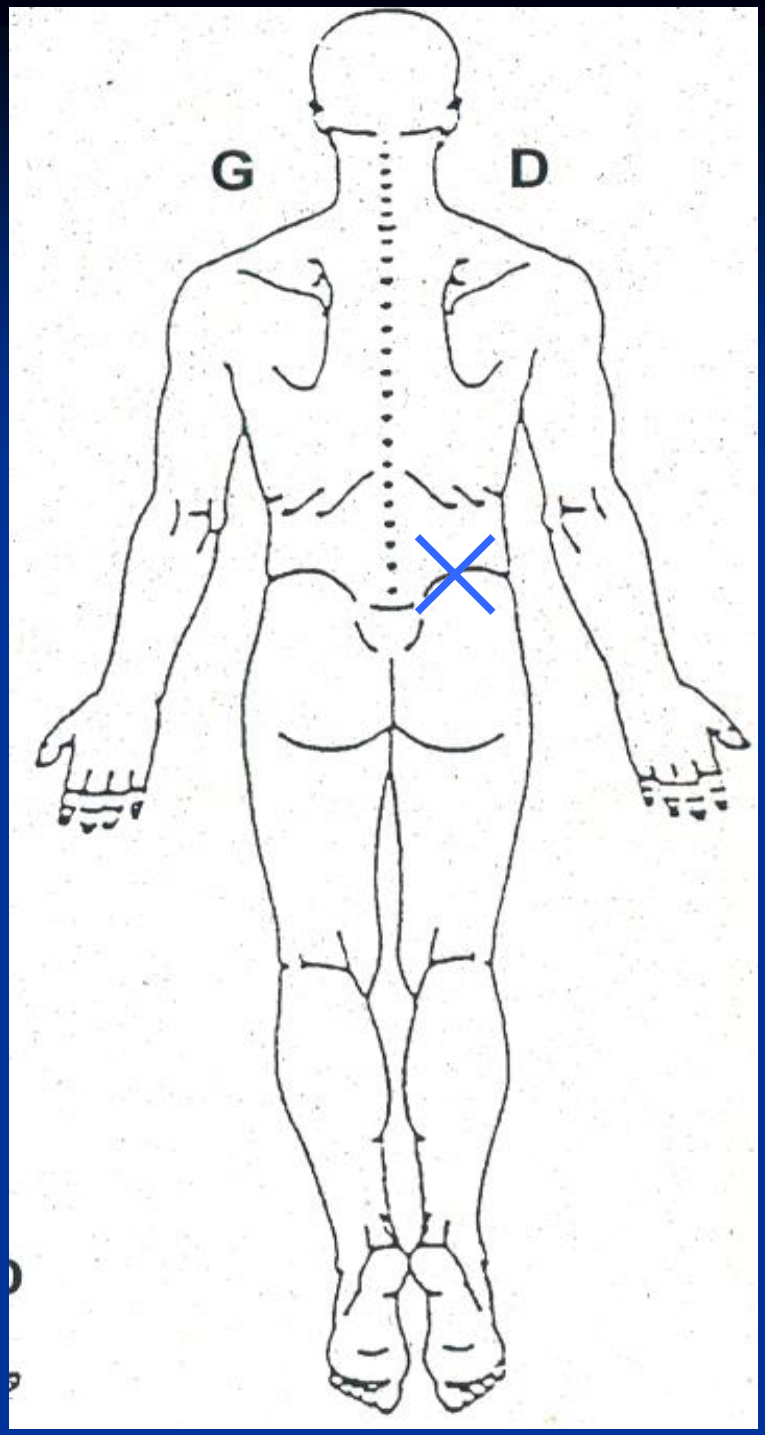
Bitte wegkommen vom “strukturellen Denken” beim chronischen Schmerz

Heller CA et al. Value of x ray examinations of the cervical spine. *British Medical Journal 1983*

Friedenberg ZB et al. Degenerative disc disease of the cervical spine. A comparative study of asymptomatic and symptomatic patients. *Journal of Bone and Joint Surgery 1963*

Boden et al. Abnormal magnetic-resonance scans of the cervical spine in asymptomatic subjects: a prospective investigation. *Journal of Bone and Joint Surgery 1990*


I THINK I SEE WHAT THE PROBLEM IS, BUT I'LL SEND YOU DOWN FOR SOME X-RAYS JUST TO MAKE SURE.
Baloo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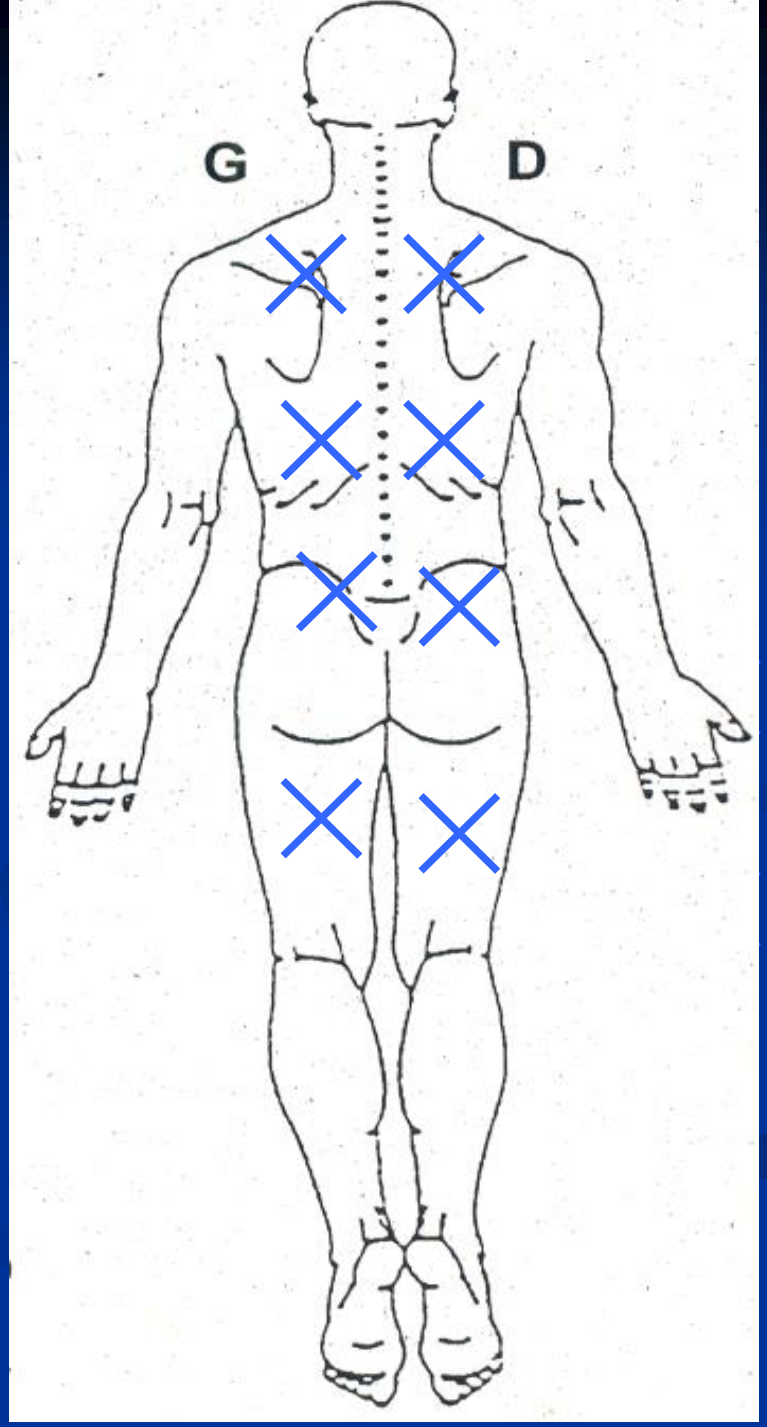
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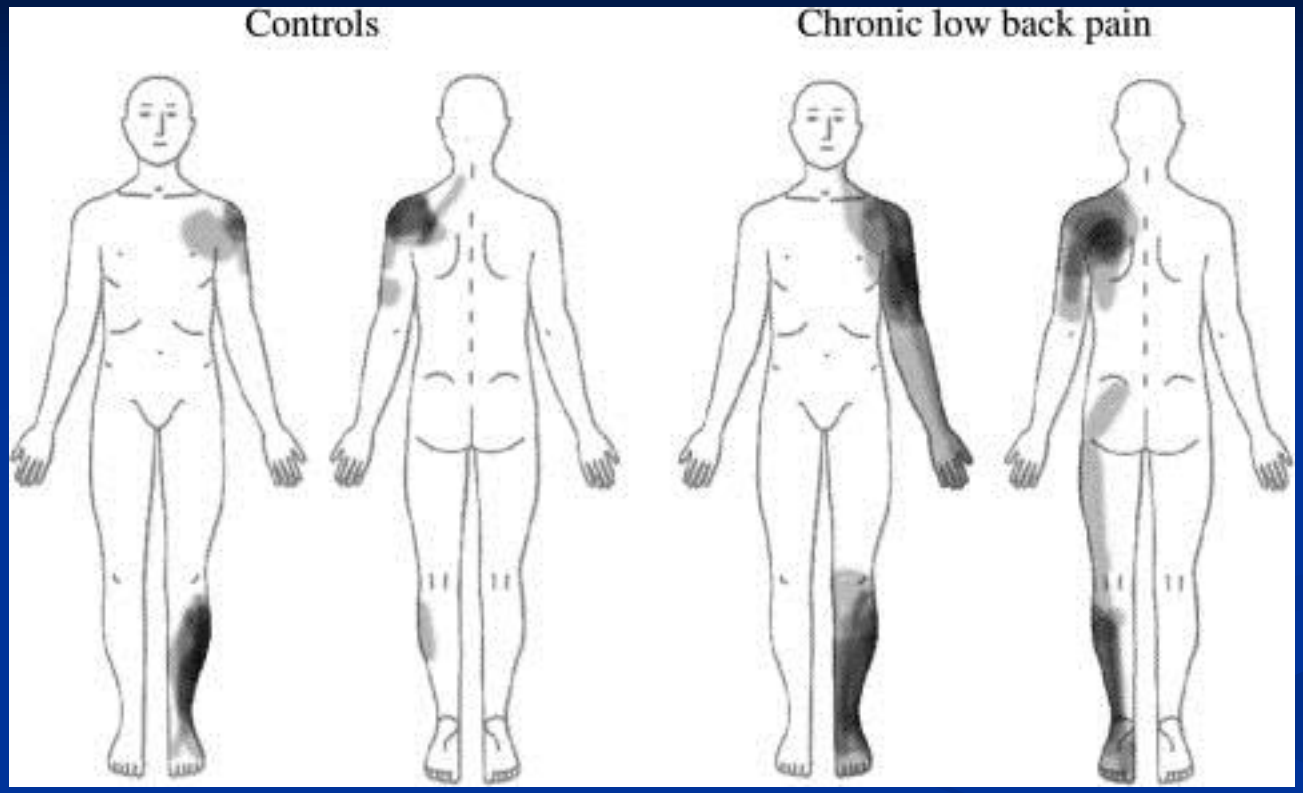
Pathophysiologie

Gestörte Schmerzmodulation

(Periphere Sensibilisierung)

Zentrale Sensibilisierung



Generalized deep-tissue hyperalgesia in patients with chronic low-back pain

Søren O'Neill et al, Europ J Pain 2007

„Pain inhibits Pain“-Mechanisms

Conditioned pain modulation

Test stimulus

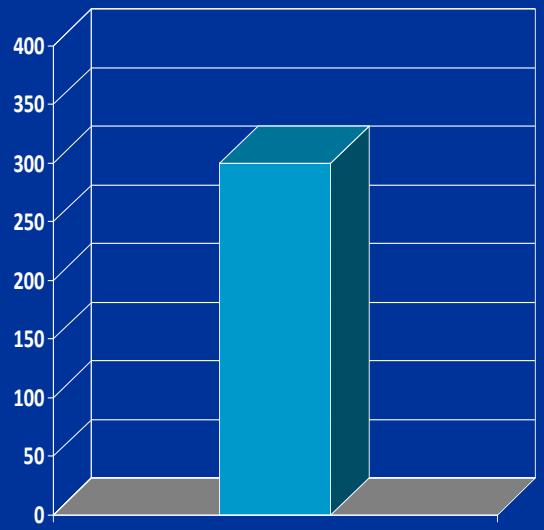
Conditioning stimulus

Test stimulus

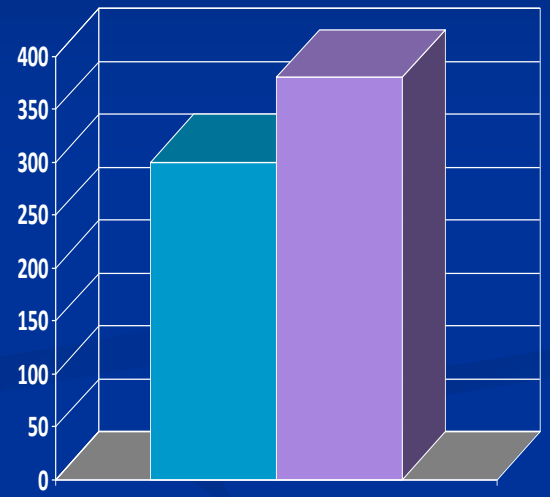
„Pain inhibits Pain“-Mechanisms

Conditioned Pain Modulation (CPM)

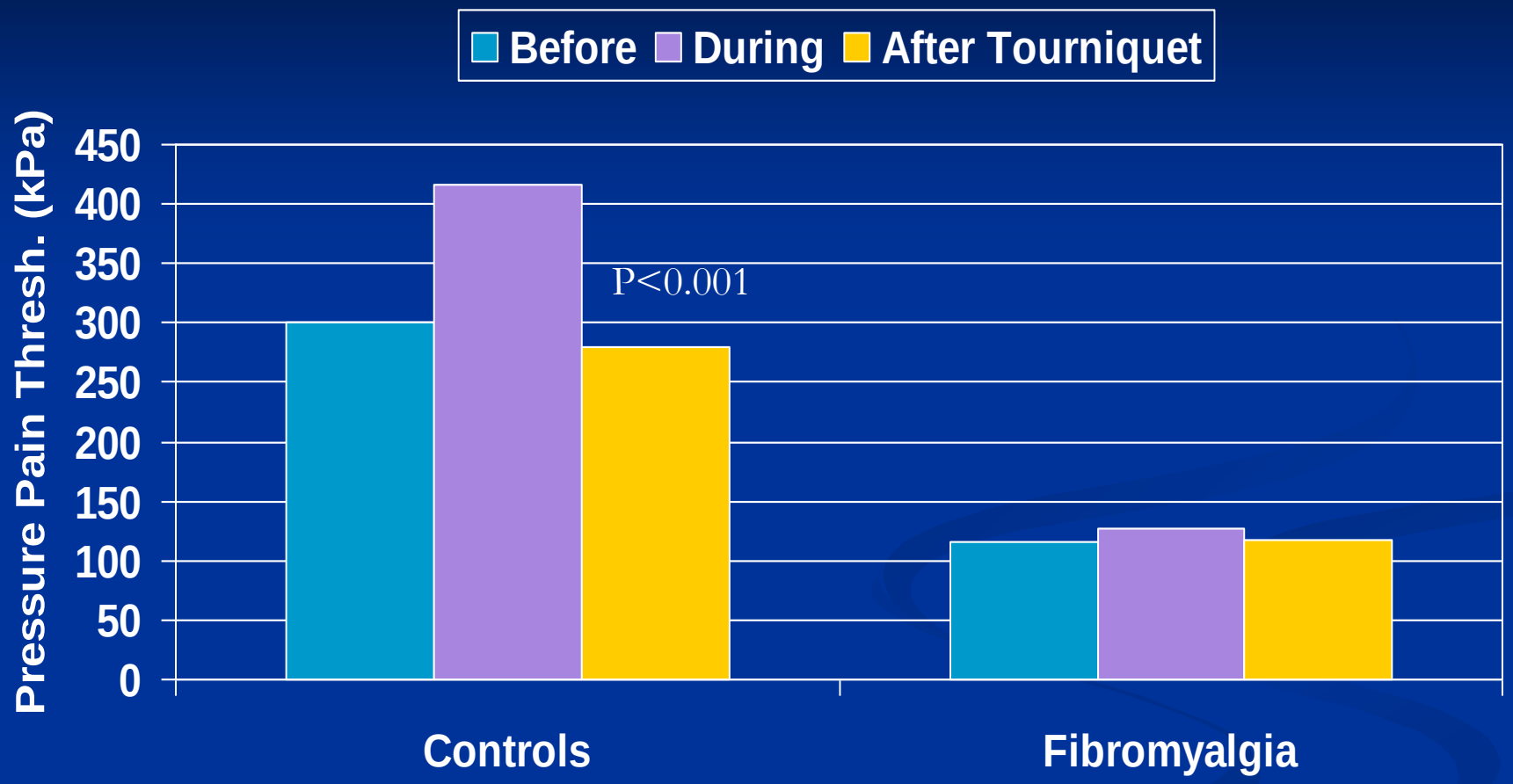
Test stimulus



Conditioning stimulus



Test stimulus



Kosek et al, Pain 1997

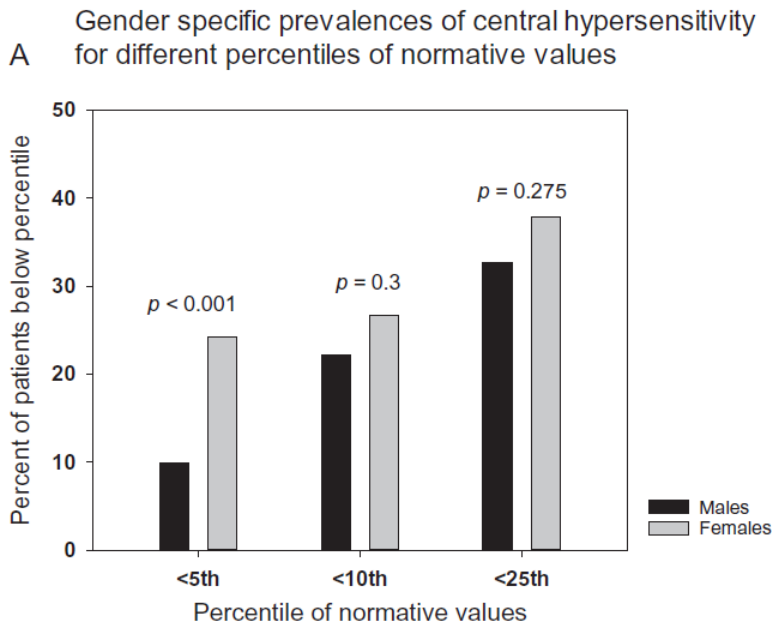
EJP
European Journal of Pain

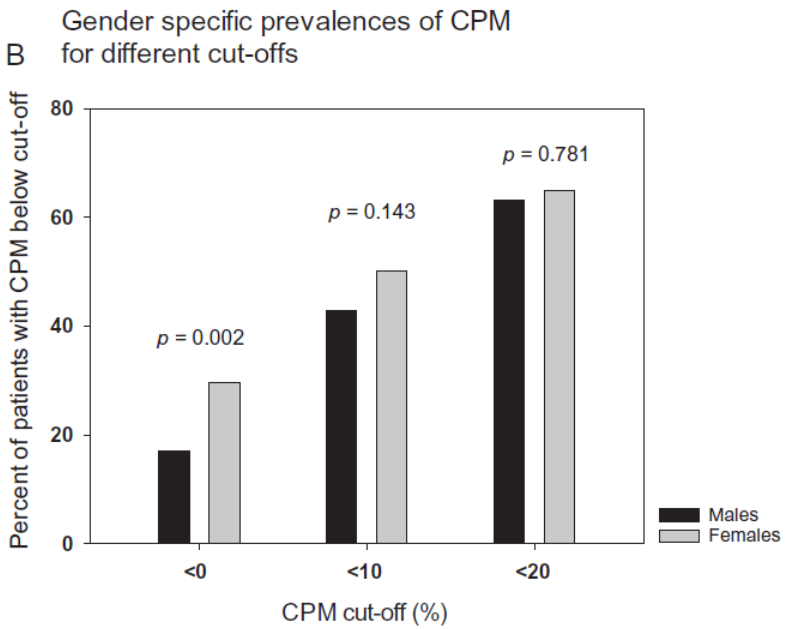
ORIGINAL ARTICLE

The prevalence of widespread central hypersensitivity in chronic pain patients

J. Schliessbach[1], A. Siegenthaler[1], K. Streitberger[1], U. Eichenberger[1], E. Nüesch[2], P. Jüni[2], L. Arendt-Nielsen[3], M. Curatolo[1]

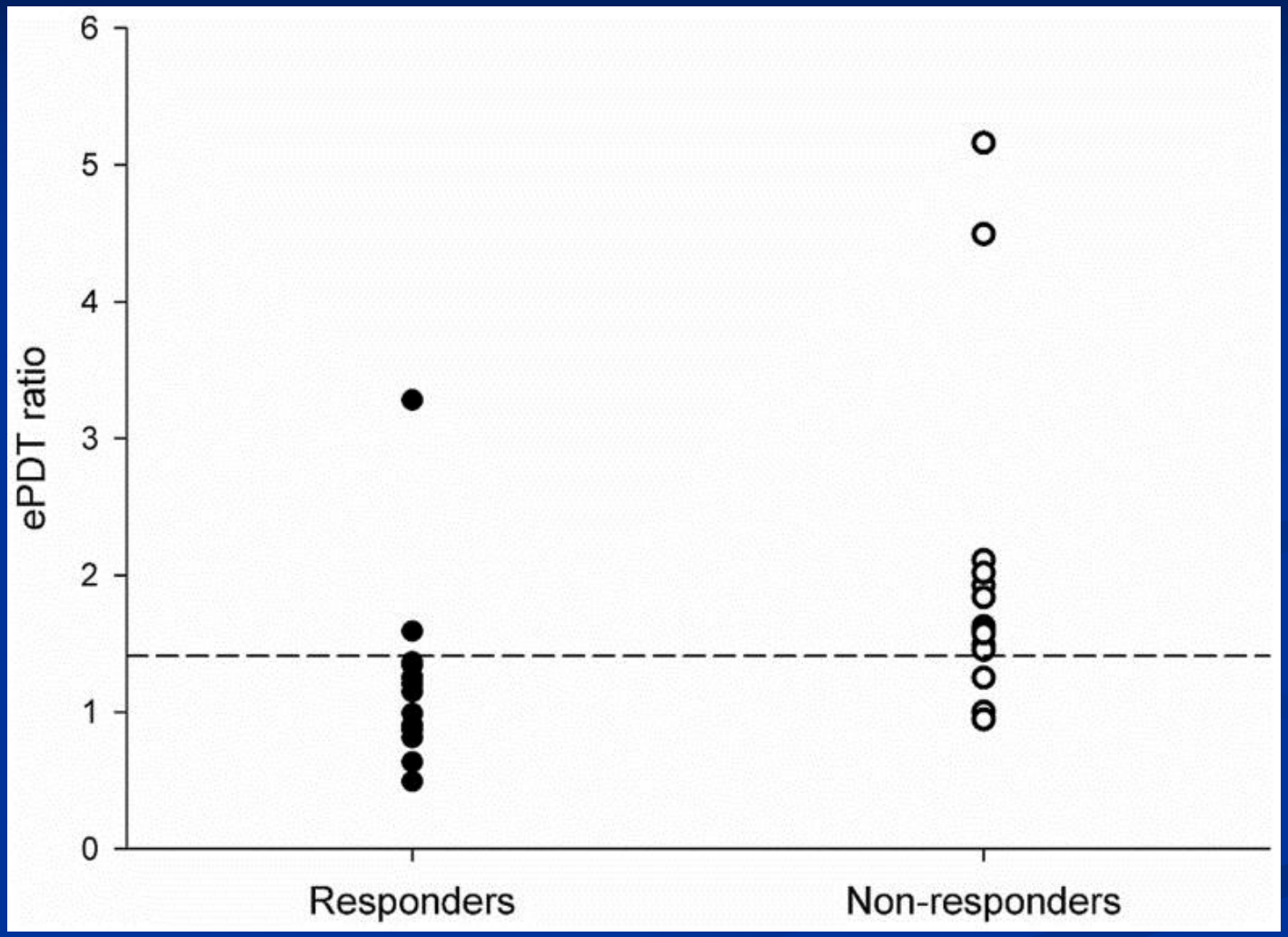
1 University Department of Anesthesiology and Pain Therapy, Inselspital Bern, Switzerland
2 Institute of Social and Preventive Medicine, University of Bern, Switzerland, and CTU Bern, Inselspital Bern, Switzerland
3 Centre for Sensory-Motor Interaction, Laboratory of Experimental Pain Research, University of Aalborg, Denmark





EJP 2013

Quantitative sensory testing predicts pregabaline efficacy in painful chronic pancreatitis.



Olesen et al, PLoS One 2013

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PAIN® 153 (2012) 1193–1198

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www.elsevier.com/locate/pain

Conditioned pain modulation predicts duloxetine efficacy in painful diabetic neuropathy

David Yarnitsky [a,b,*], Michal Granot [c], Hadas Nahman-Averbuch [b], Mogher Khamaisi [d], Yelena Granovsky [a,b]

[a] Department of Neurology, Rambam Health Care Campus, Haifa, Israel
[b] Laboratory of Clinical Neurophysiology, Technion Faculty of Medicine, Haifa, Israel
[c] Faculty of Health and Welfare Sciences, Haifa University, Haifa, Israel
[d] Institute of Endocrinology, Diabetes & Metabolism & Internal Medicine, Rambam Health Care Campus, Haifa, Israel

-> CPM positive -> Duloxetine ineffective

-> CPM negative -> Duloxetine effective

Alteration of endogenous modulation

↓

Chronic post-thoracotomy pain

Yarnitsky et al, Pain 2008

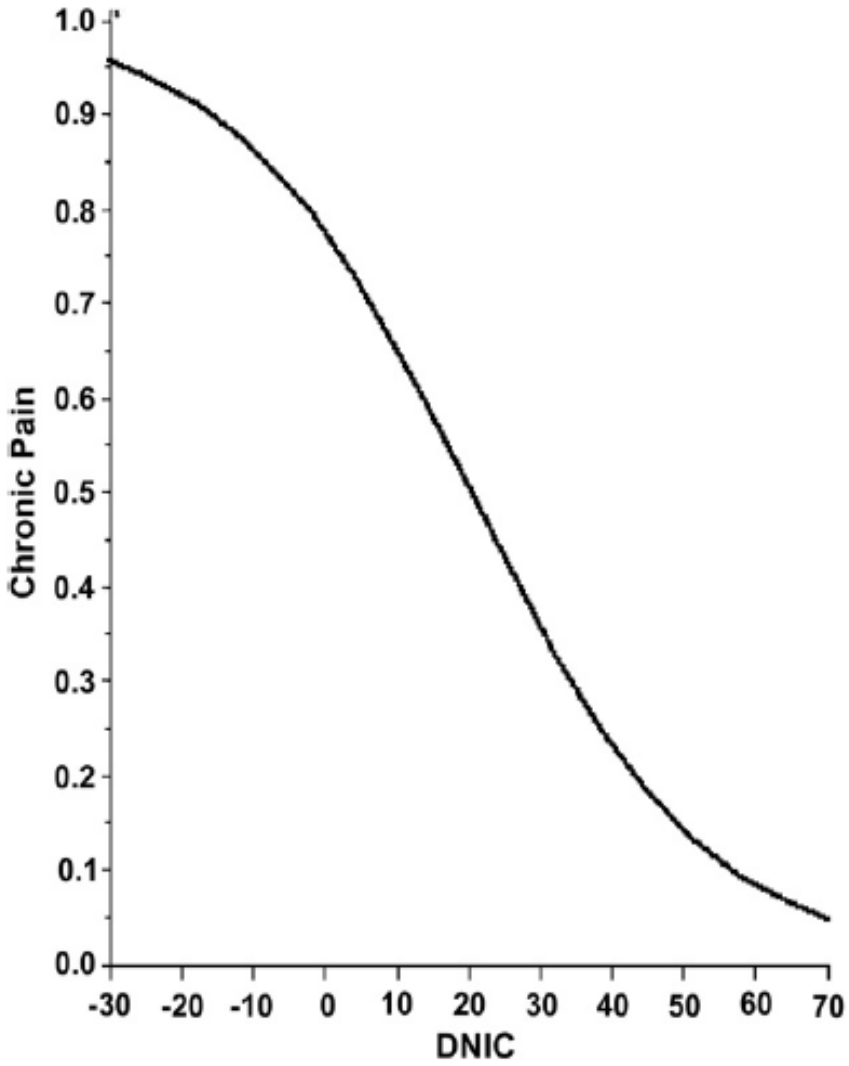

Fig. 2. Logistic regression probability plot relating DNIC to the probability of development of chronic pain.

Zusammenfassung

- Pharmakologische Therapie oft schwierig (NNT/NNH)
- Wachsende Bedeutung von QST zwecks Erkennung gestörter Schmerzmechanismen
- Wachsende Bedeutung von “Mechanismus-basierter” individueller Schmerztherapie

"This prescription won't make you feel better but it will stop your whining and make everyone else feel better."