Interventionelle Schmerztherapie

akut/chronisch

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Interventionelle Schmerztherapie SSIPM

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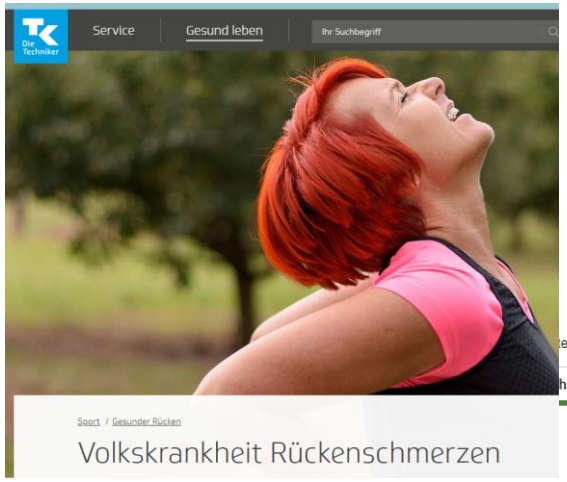
Volkskrankheit

Rückenschmerzen, eine Volkskrankheit

Fast jeder dritte Deutsche klagt mindestens einmal pro Jahr über Rückenschmerzen. Damit ist diese Art von Schmerzen eine der am weitverbreitetsten Schmerzen überhaupt. Doch woher kommt das?



Kölnische Rundschau ▸ Magazin ▸ Volkskrankheit Nummer Eins: Die wichtigsten Fragen und Antworten zu Rückenschmerzen

Volkskrankheit Nummer Eins Die wichtigsten Fragen und Antworten zu Rückenschmerzen

Von Angela Stoll | 27.03.18, 09:56 Uhr

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Home – Ratgeber – Deutschland hat Rücken – Schmerz wird zur Volkskrankheit

Deutschland hat Rücken – Schmerz wird zur Volkskrankheit

Drei Viertel aller Berufstätigen in Deutschland leiden unter Rückenschmerzen. Programme der Krankenkassen schlagen allerdings nicht an.

“Non-specific low back pain affects people of all ages and is a leading contributor to disease burden worldwide.”[1]

„Fast jeder dritte Deutsche klagt mindestens einmal pro Jahr über Rückenschmerzen.“[2]

„Sie sind eine der Hauptursachen für Krankschreibungen in Deutschland.“[3]

„Insgesamt gibt es hierzulande pro Jahr mehr als 38 Millionen Arztbesuche wegen Rückenschmerzen.“[4]

Bei ~10% der Patienten werden die Rückenschmerzen chronisch.[3]

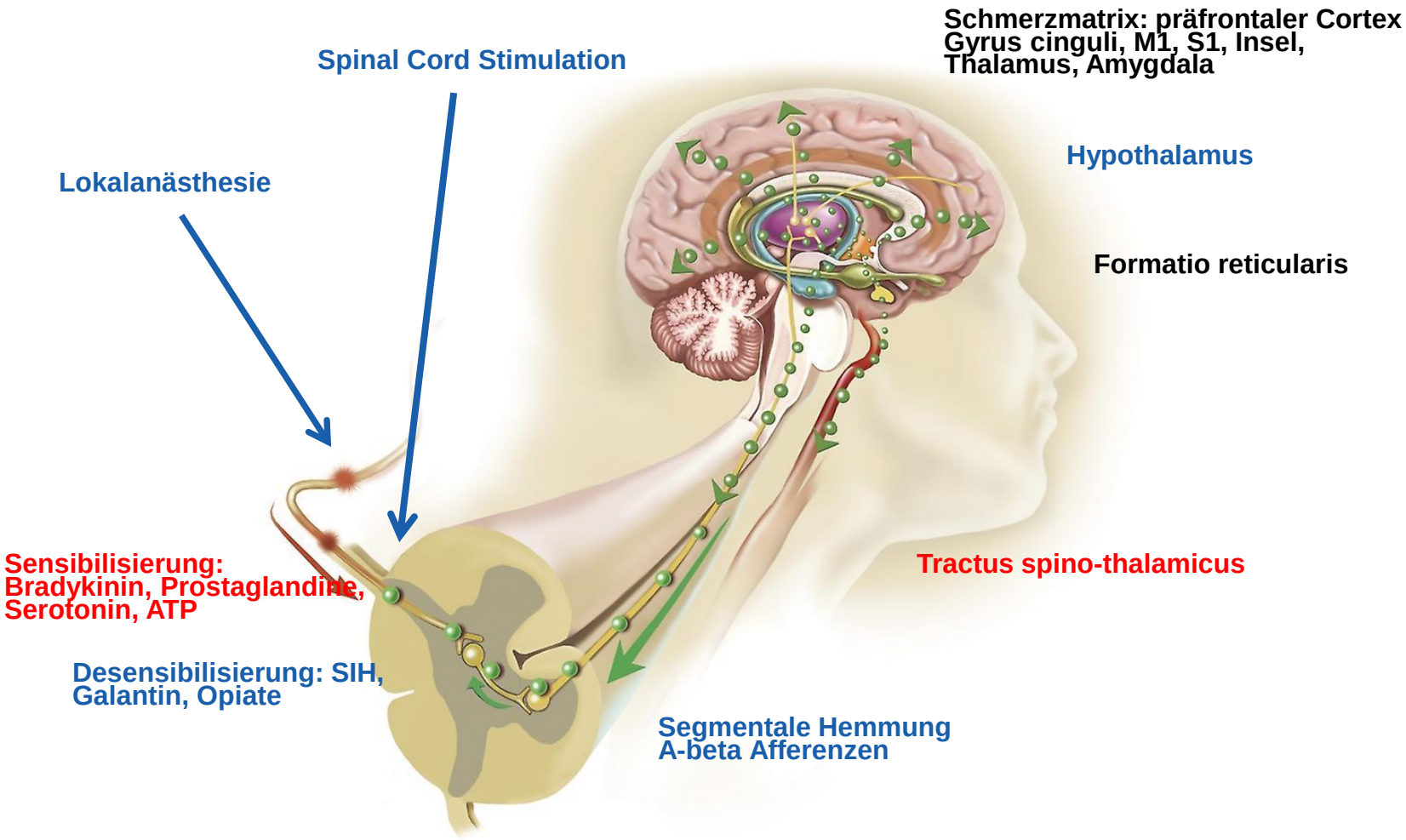
[1]https://www.thelancet.com/clinical/diseases/back-pain
[2]https://aok-erleben.de/rueckenschmerzen-eine-volkskrankheit/
[3]https://www.tk.de/techniker/gesund-leben/sport/gesunder-ruecken/volkskrankheit-rueckenschmerzen-2007866
[4]https://www.rundschau-online.de/magazin/volkskrankheit-nummer-eins-die-wichtigsten-fragen-und-antworten-zu-rueckenschmerzen-29931080

„Thus it is said- the path into the light seems dark, the path forward seems to go back, the direct path seems long and true power seems weak.... And the greatest wisdom seems childish.“

Lao Tzu Te Ching

„Der Trost der Welt besteht darin, dass ein kein unaufhörliches Leiden gibt. Ein Schmerz vergeht, eine Freude entsteht, sie halten sich die Wage.“

(Albert Camus)


Schmerzmatrix: präfrontaler Cortex
Gyrus cinguli, M1, S1, Insel,
Thalamus, Amygdala
Spinal Cord Stimulation
Hypothalamus
Lokalanästhesie
Formatio reticularis
Sensibilisierung:
Bradykinin, Prostaglandine,
Serotonin, ATP
Tractus spino-thalamicus
Desensibilisierung: SIH,
Galantin, Opiate
Segmentale Hemmung
A-beta Afferenzen

Interventionelle Schmerztherapie

- Lokale Injektionstechniken, minimal invasive in der Regel perkutane und chirurgische Behandlungstechniken, die durch stetige radiologische Bildgebung (CT, Bildverstärker, Ultraschall) eine Behandlung und Diagnostik der Schmerzgeneratoren ermöglicht.

- **Periradikuläre Therapie**
- **Periartikuläre Therapie**
- **Perineurale Therapie**
- **Radiofrequenz Therapie (RF, pRF)**
- **Kryotherapie (Kryodenervation)**
- **Neurostimulation (SCS, PNS)**
- **Neuromodulation (intrathekale Pumpe)**
- **intramuskuläre Therapie (Botulinumtoxin)**

(Interventionelle) Schmerztherapie

- **Regeneration:** Physiotherapie, Platelet Rich Plasma, Proliferationstherapie, Hydrogel, Kryostimulation, komplementär Medizin, Life Style, Partnerschaft, Beruf etc.

- **Blockade und Entzündungshemmung:** Lokalanästhesie, Steroide, Radiofrequenz Denervation, Kryodenervation,NSAR, Neuraltherapie etc.

- **Neurostimulation:** Spinal Cord Stimulator, Peripheral Nerve Stimulator, Stimpod, pulsierte Radiofrequenz etc.

- **Neuromodulation:** intrathekale Pumpe (Lokalanästhsie und/ oder Opiate), Antiepileptika (Gabapentin), Antidepressiva (Amitryptilin), Tapentadol, rTMS etc.

Interventionelle Schmerztherapie:

Schmerzlokalisation- Intervention

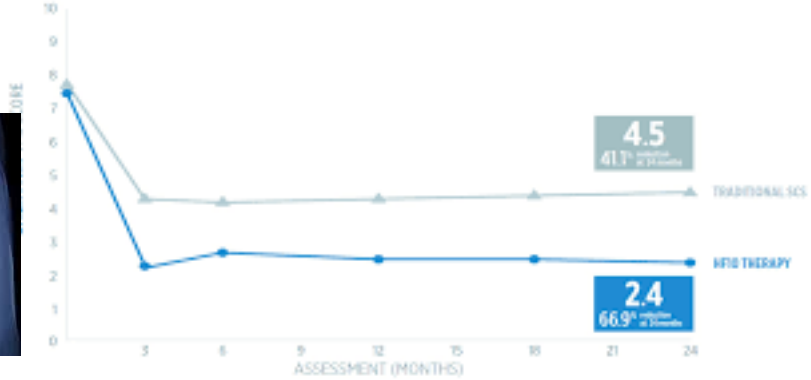
Schmerztyp	Methode
Kopfschmerzen Atypische Gesichtsschmerzen	-C2 Infiltration, Nn. Occipitalis maj.bds -Ggl Sphenopalatinum (transnasal/lateral) etc. -pRF
Nackenschmerzen	- Facettengelenke, Periradikuläre Therapie, tLESI (PDA), SCS
Rückenschmerzen	- Zusätzlich intradiskale Therapie, tlESI (PDA); SCS
Kreuzschmerzen	- ISG Infiltration, RF
Abdominalschmerzen Leistenschmerzen	Coeliacus Block, Pumpe, SCS, pRF
Urogenitale Schmerzen	Infiltration, PNS, S3 Block, S3 Stimulation
Angina Pectoris, pAVK	SCS, Grenzstrangblockade
Gelenksschmerzen	RF, pRF, SCS/DRG
CRPS Typ 1 und 2	PNS, Grenzstrang, Guanetitin (IVRA) etc.

Neurostimulation

- Hohe Frequenz (10 kHz)

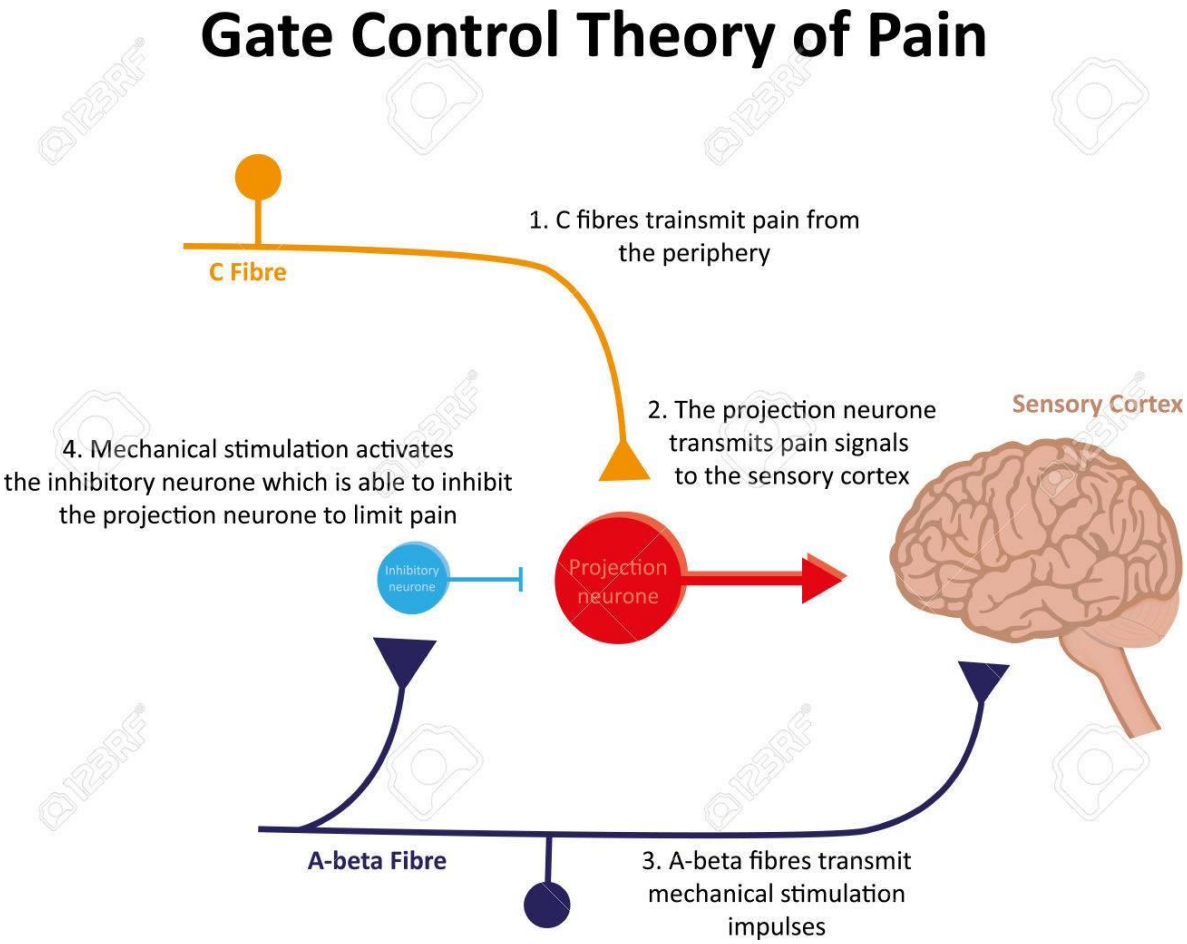
- Standardisiertes Protokoll für die Platzierung

- Implantation unter Allgemeinanästhesie möglich

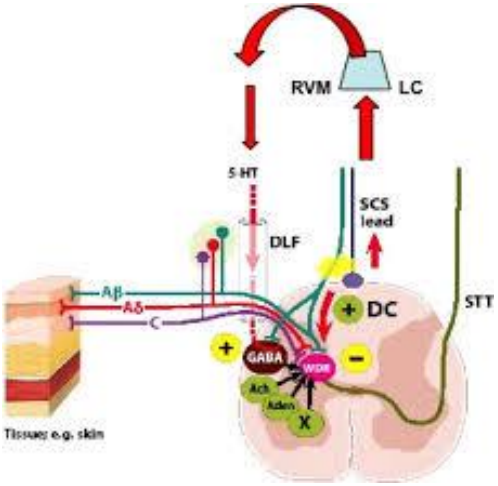


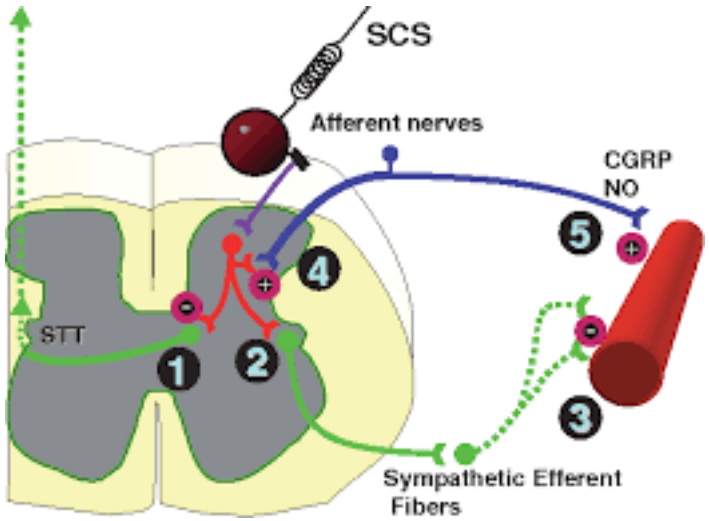
HF10™

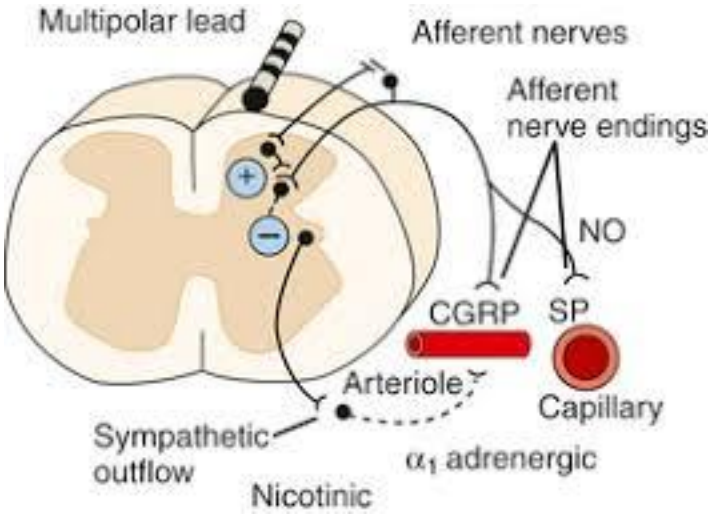
The gate control theory



Neurostimulation

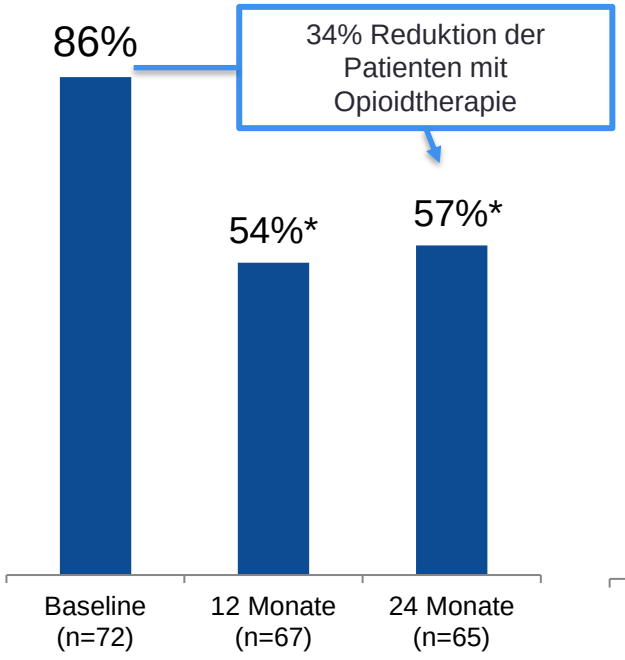




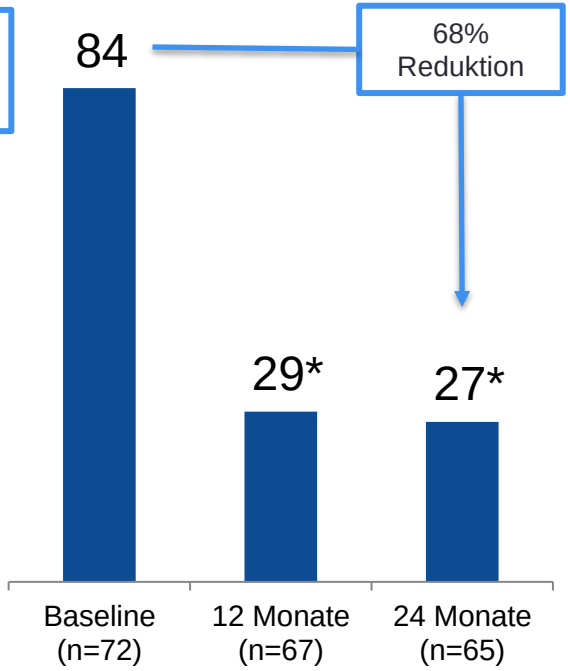


SENZA-EU Studie konnte Opioidreduktion nach 2 Jahren HF10 Therapie zeigen

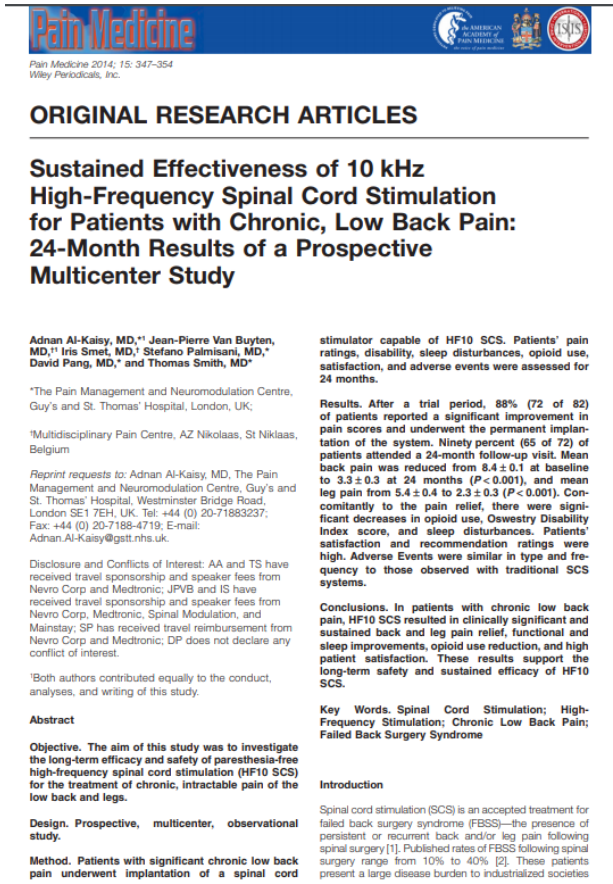
% Patienten, die Opioide nehmen



Durchschnittliches Morphinäquivalent pro Patient in mg



* p-value < 0.001 in Vergleich zur Baseline



Pain Medicine

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ORIGINAL RESEARCH ARTICLES

Sustained Effectiveness of 10 kHz High-Frequency Spinal Cord Stimulation for Patients with Chronic, Low Back Pain: 24-Month Results of a Prospective Multicenter Study

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[1]Both authors contributed equally to the conduct, analyses, and writing of this study.

Abstract

Objective. The aim of this study was to investigate the long-term efficacy and safety of paresthesia-free high-frequency spinal cord stimulation (HF10 SCS) for the treatment of chronic, intractable pain of the low back and legs.

Design. Prospective, multicenter, observational study.

Method. Patients with significant chronic low back pain underwent implantation of a spinal cord stimulator capable of HF10 SCS. Patients' pain ratings, disability, sleep disturbances, opioid use, satisfaction, and adverse events were assessed for 24 months.

Results. After a trial period, 88% (72 of 82) of patients reported a significant improvement in pain scores and underwent the permanent implantation of the system. Ninety percent (65 of 72) of patients attended a 24-month follow-up visit. Mean back pain was reduced from 8.4 ± 0.1 at baseline to 3.3 ± 0.3 at 24 months ($P < 0.001$), and mean leg pain from 5.4 ± 0.4 to 2.3 ± 0.3 ($P < 0.001$). Concomitantly to the pain relief, there were significant decreases in opioid use, Oswestry Disability Index score, and sleep disturbances. Patients' satisfaction and recommendation ratings were high. Adverse Events were similar in type and frequency to those observed with traditional SCS systems.

Conclusions. In patients with chronic low back pain, HF10 SCS resulted in clinically significant and sustained back and leg pain relief, functional and sleep improvements, opioid use reduction, and high patient satisfaction. These results support the long-term safety and sustained efficacy of HF10 SCS.

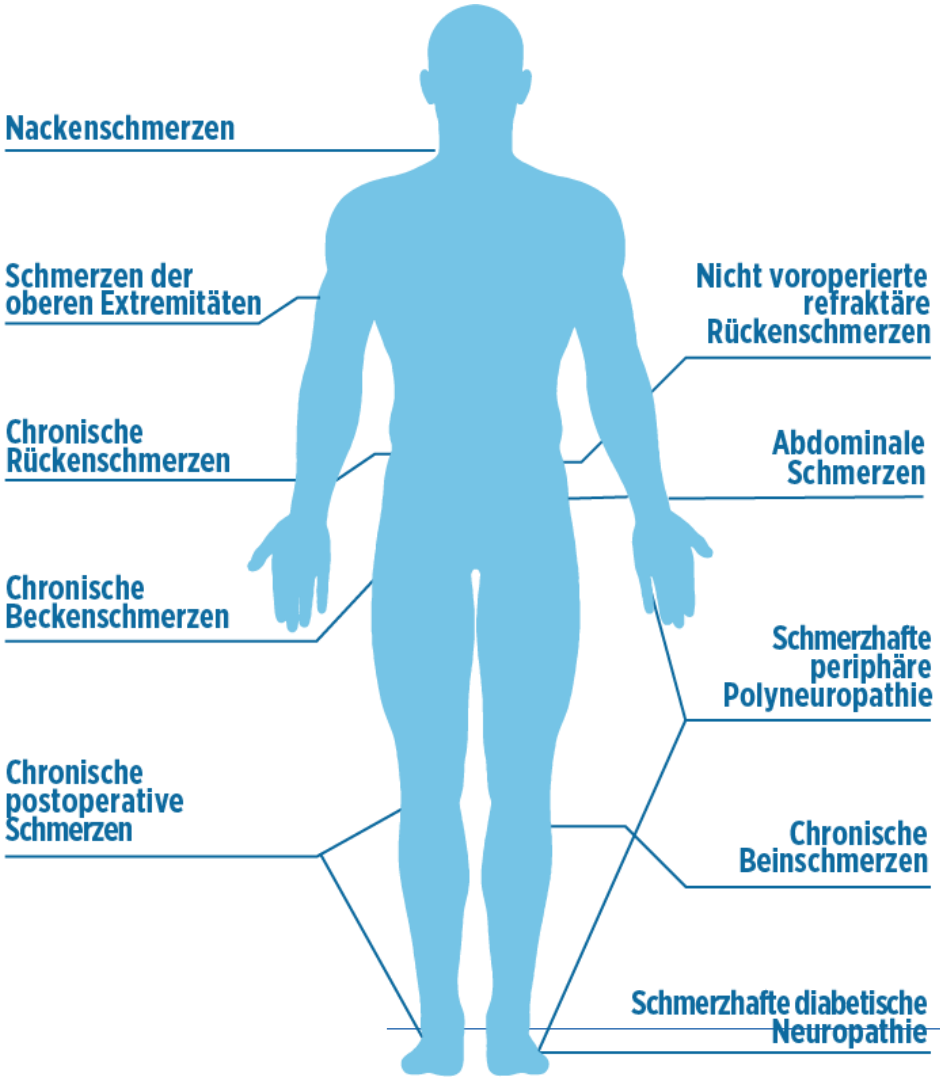
Key Words. Spinal Cord Stimulation; High-Frequency Stimulation; Chronic Low Back Pain; Failed Back Surgery Syndrome

Introduction

Spinal cord stimulation (SCS) is an accepted treatment for failed back surgery syndrome (FBSS)—the presence of persistent or recurrent back and/or leg pain following spinal surgery [1]. Published rates of FBSS following spinal surgery range from 10% to 40% [2]. These patients present a large disease burden to industrialized societies

Al-Kaisy et al., Sustained effectiveness of 10 kHz high-frequency spinal cord stimulation for patients with chronic, low back pain: 24-month results of a prospective multicenter study, Pain Med. 2014 Mar;15(3):347-54.

Weitere Einsatzfelder neben postoperative Rückenschmerzen



>20 laufende Studien zu neuen Schmerzbereichen und Indikationen

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