

Ozone-Neural-therapy – a perfect combination in praxis

(una combinazione perfetta in pratica)



Uwe Günter, MD

President of the German
Society for Acupuncture
and Neural-Therapy
(DGfAN)

www.dgfan.de

introduction

(presentati)

- Uwe Günter, MD
- married, 2 children
- was born in Merseburg/Saxony Anhalt
- studied in Greifswald/Mecklenburg/Western Pomerania
- live in Brandenburg
- practices in Berlin as an orthopedist and neural therapist for 20 years
- lecturer in DGfAN since 2013

the goals of the DGfAN

(gli obiettivi della DGfAN)

- teaching how accurate
- needling a acupuncture-point or injecting procaine
- in the correct meridian, segment or region (e.g. dermatome, facet-joint, scar)
- in the event of an imbalance of yang/sympathicus and yin/parasympathicus
- in combination with related techniques e.g. ozone (in a triggerpoint or joint)

Neural-therapy

(terapia neurale)

- is the diagnostic and therapeutic application of local anesthetics with reversible effects on neurological [1,2] and **immunological** receptors [3]
- local anesthetics are **immun-modulators to be applied locally**
- injecting drugs is a **medical art of healing**

[1] **Fleckenstein** A (1953) Über den Wirkungsmechanismus peripher schmerzzeugender sowie lokalanästhetischer Stoffe. Acta neurovegetativa. 7: 94–105

[2] **Niesel** HC, Van Aken H (2003) Regionalanästhesie. Thieme

[3] **Weinschenk** S (2020) Handbuch der Neuraltherapie. 2. Aufl. Thieme

important studies and guidelines

(importanti studi e linee guida)

- one of the most frequently used therapies in german practice [1]
- is recommended for neck-pain [2]
- classified as worth mentioning für ear-ache [2]
- is no recommended for low back pain [3] despite experience reports [4] due to the data an oral medikation

[1] Joos S, Musselmann B, Szecsenyi J (2011) Integration of complementary and alternative medicine into family practices in Germany: results of a national survey. Evid Based Complement Alternat Med. 2011:495813

[2] https://www.awmf.org/uploads/tx_szleitlinien/

[3] https://www.awmf.org/leitlinien/leitlinien-suche/II-ergebnis/liste/II-seite/40/II-dok/lang/II-klass/alle/II-gesellschaft/-b942022795/II-org/0/II-sort/rel/II-erg/10.html?tx_szleitlinien_pi2%5Bstatus%5D=1

[4] Weinschenk S. Neural therapy - A review of the therapeutic use of local anesthetics. Acupunct Relat Ther 2012;(1):5-9.

publications about local anesthetics

(pubblicazioni sugli anestetici locale)

- many articles about treatment of joint pain by local anesthetics
- e.g. times to first mobilization and discharge from **hospital were significantly shorter** for chloroprocaine [1]
- treatment of popliteal (Baker) cysts with ultrasound-guided aspiration, fenestration and injection: Long-term Follow-up. [2]

[1] **Teunkens** A et al. (2016) Comparison of 2-Chloroprocaine, Bupivacaine, and Lidocaine for Spinal Anesthesia in Patients Undergoing Knee Arthroscopy in an Outpatient Setting: A Double-Blind Randomized Controlled Trial. Reg Anesth Pain Med 41(5): 576-83

[2] **Smith** MK et al. (2015) Sports Health. 7(5): 409-14

effects of local anesthetics

(effetti degli anestetici locale)

- local anesthetics induce intracellular anti-inflammatory effects via **G protein-coupled receptors** (Hollmann, Durieux et al.) [1]
- local anesthetics inhibits **IL-1** secretion and stimulates **IL-1-RA** in epithelial cells [2]
- local anesthetics blocks **TNF- α** induction in endothelial cells [3]

[1] **Weinschenk S** (2010) Handbuch der Neuraltherapie. Elsevier

[2] **Lahav M** et al. (2002) Clin. Exp Immunol 127(2): 226-33

[3] **Piegeler T** et al. (2014) Anesthesiology. 120(6): 1414-28

facts about procaine

(fatti sulla Procaina)

- in practice favor the use of procaine, because the effect of its specific dissociation products paraaminobenzoic acid and diethylaminoethanol.
- They
 - reduces a pathologically increased capillary permeability
 - act antihistaminic
 - induces vasodilatation

facts about inflammation

(fatti sull'inflammazione)



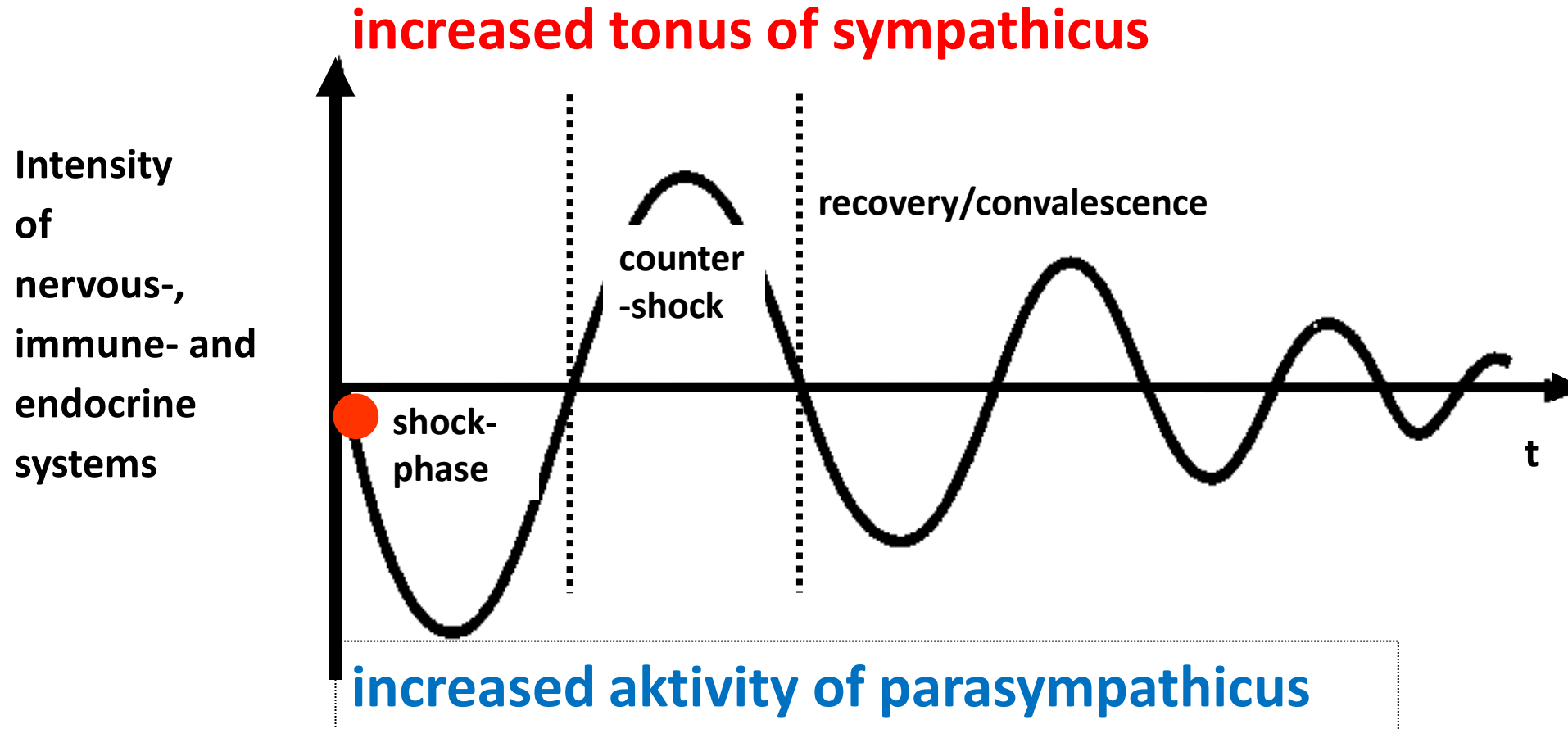
- inflammation follows stress
- non-accidental pain follows inflammation
- stress-adaptation follows pain
- all these 3 factors **activate the sympathetic nervous system**

facts about inflammation

(fatti sull'infiammazione)

- acut: CrP, leucocytosis, thrombocytosis, histamonosis etc.
- chronic: monocytosis, increased TNF, IL1, IL6 etc., decreased Serotonin, Calcidiol (Vit D), holo-TC (B12), retinol-bind. Prot., Zn, Fe etc.
- silent: increased CCL5 (RANTES), nitrotyrosin, MDA-LDL etc. , decreased ATP, Q10, P-5-P (B6), Glutathion, Se, Cu, Mn etc.

stress response according to Selye (teoria dello stress di Selye)

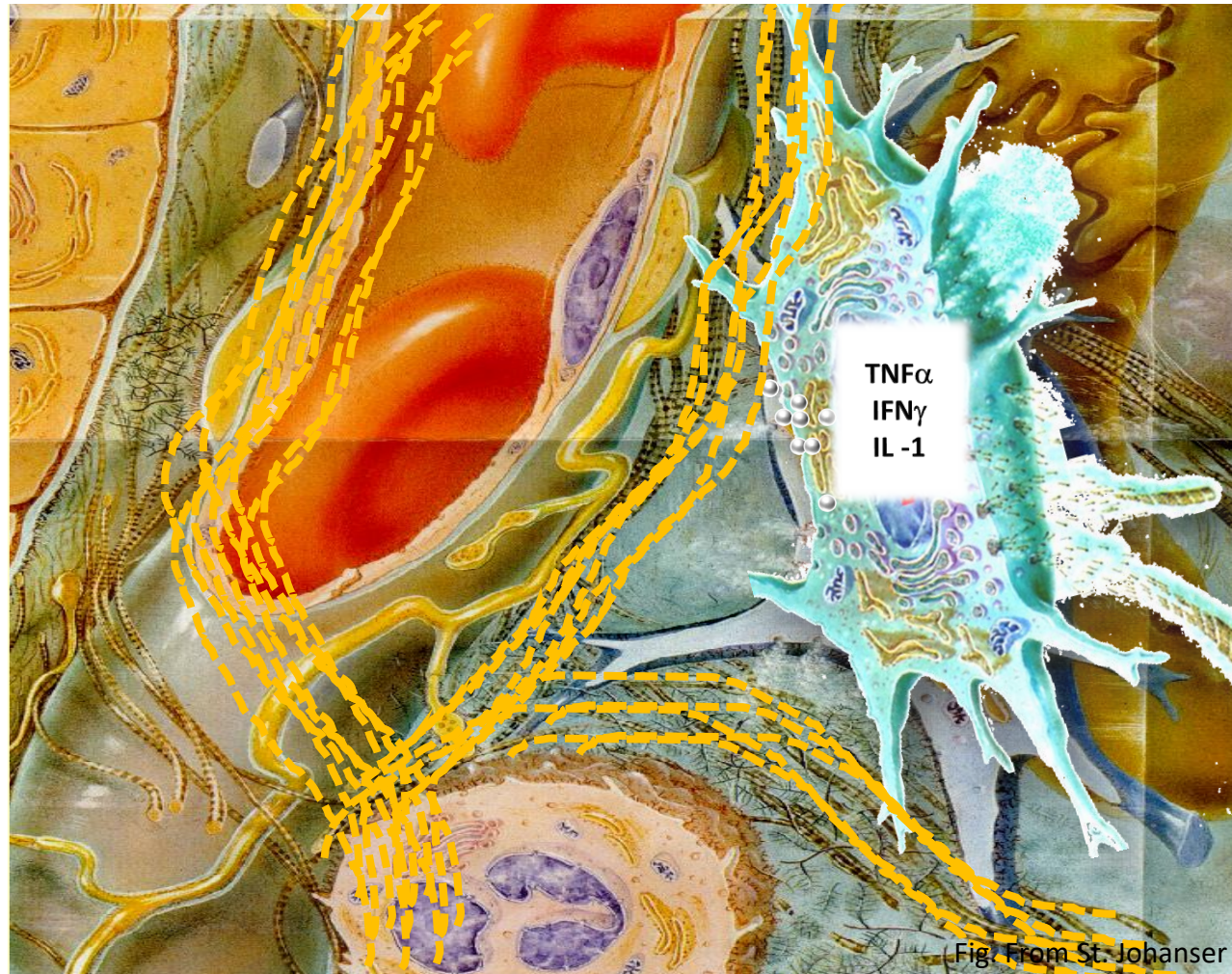


vascular response according to Eppinger



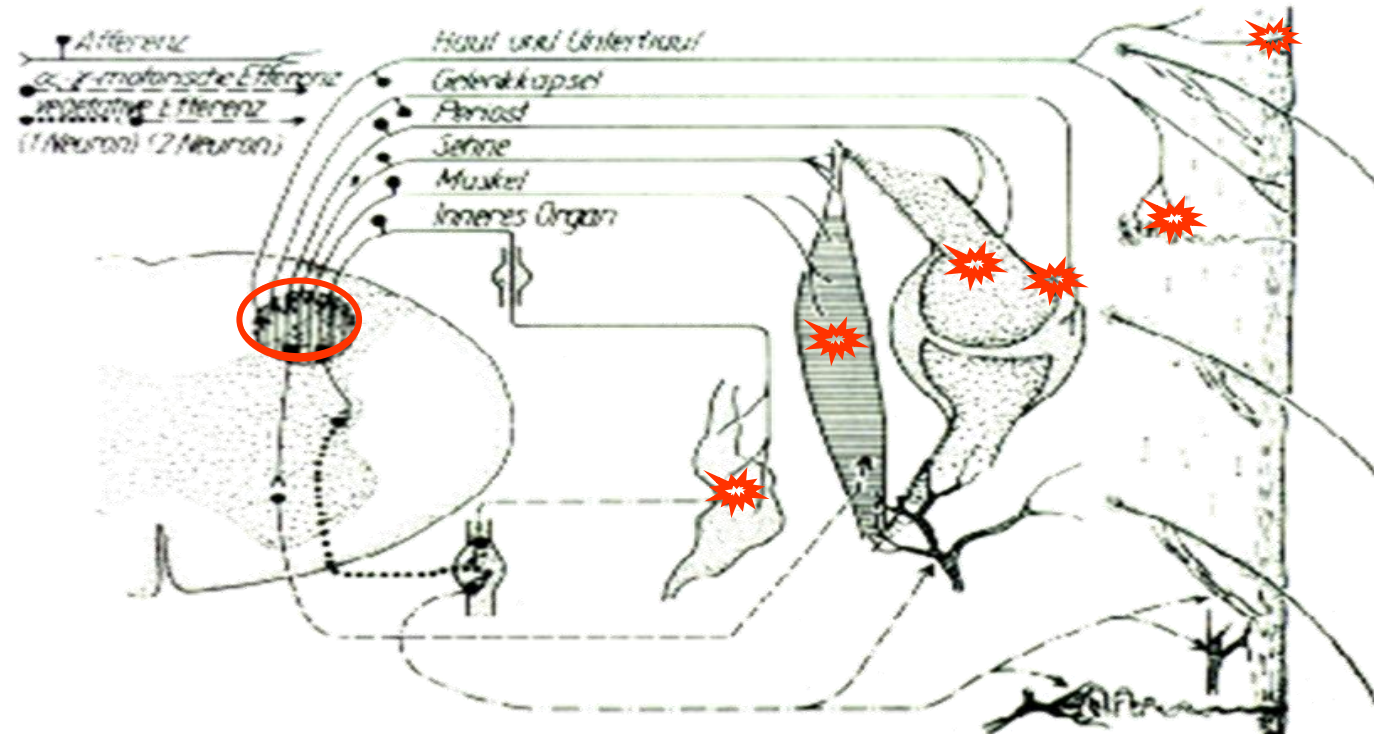
Fig. From [1]

response fo inflammation in matrix according to Pischinger



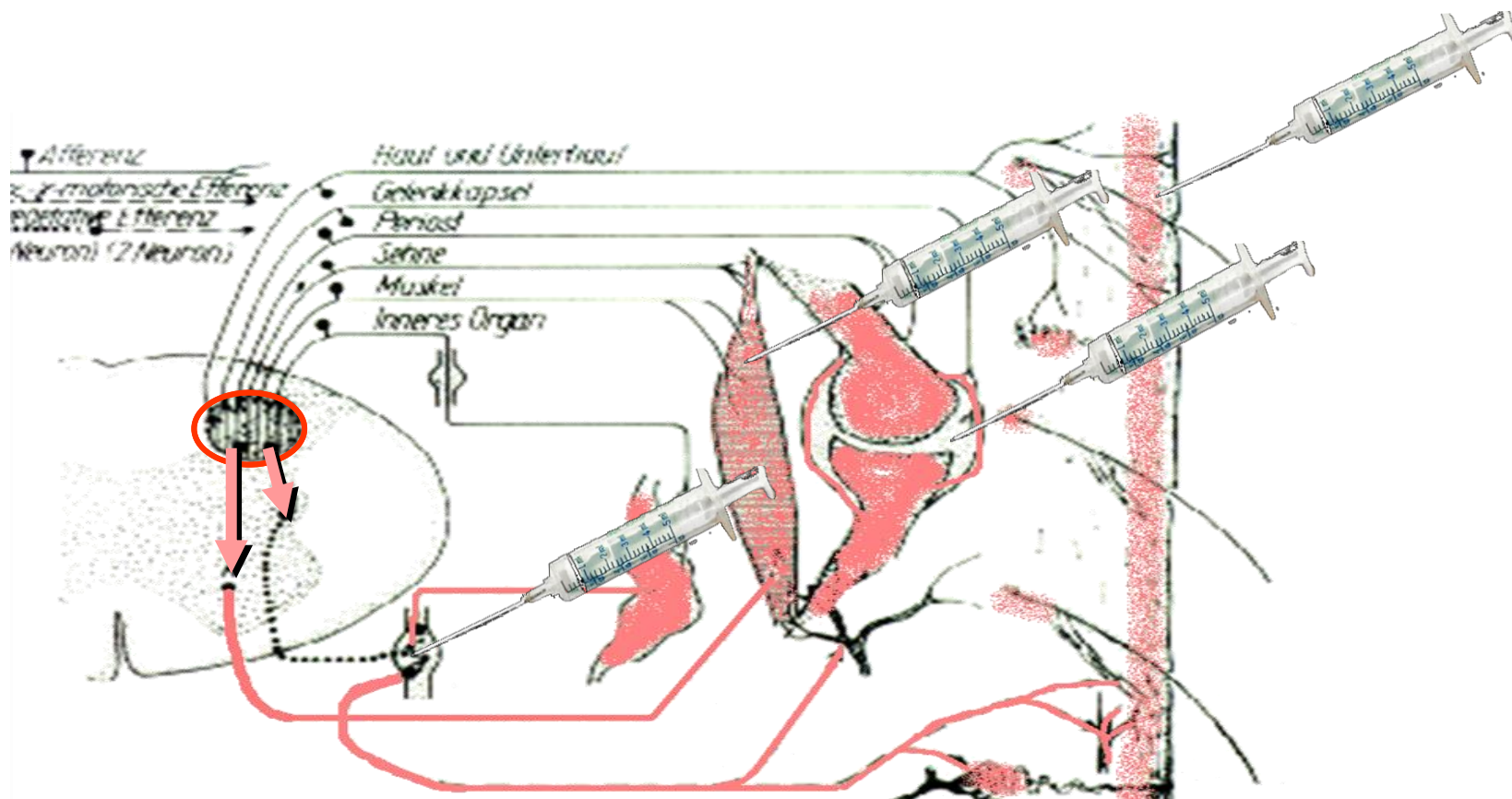
dysbalance in each segmental complex

(squilibrio in ogni complesso segmentale)



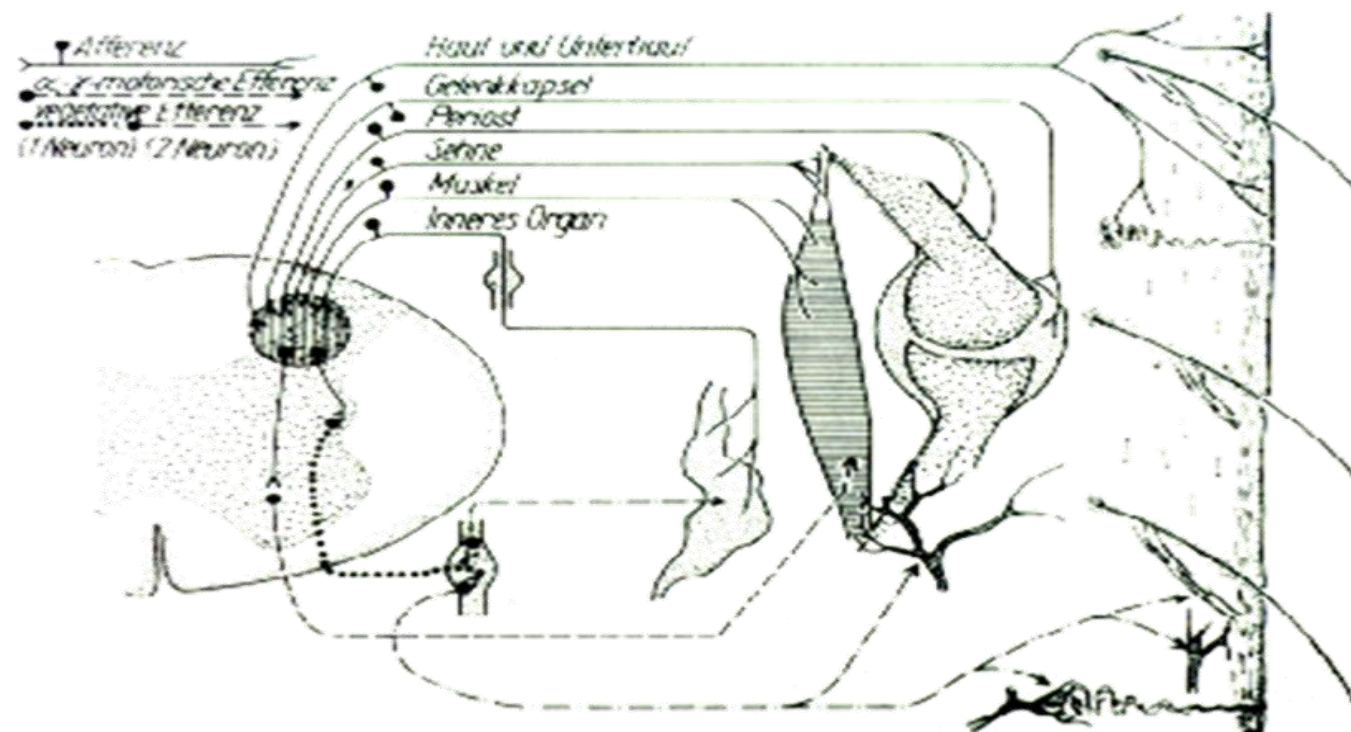
Neural-therapy in segmental complex

(terapia neurale in ogni complesso segmentale)



balance without inflammation and pain

(equilibrio senza infiammazione e dolore in ogni complesso segmentale)



requirement for injection

(attrezzature per iniezioni)

spray-desinfection



disinfected room



reusable material



gloves



mask (only for disconnecting)



syringes (siringhe)



f.l.t.r.

- Luer Solo Lock (3ml) for intraoral injections
- Luer Solo (3ml, 5ml und 10ml) for injections
- Omnifix Luer Solo (20ml) for ozone-injections

needles (cannule)

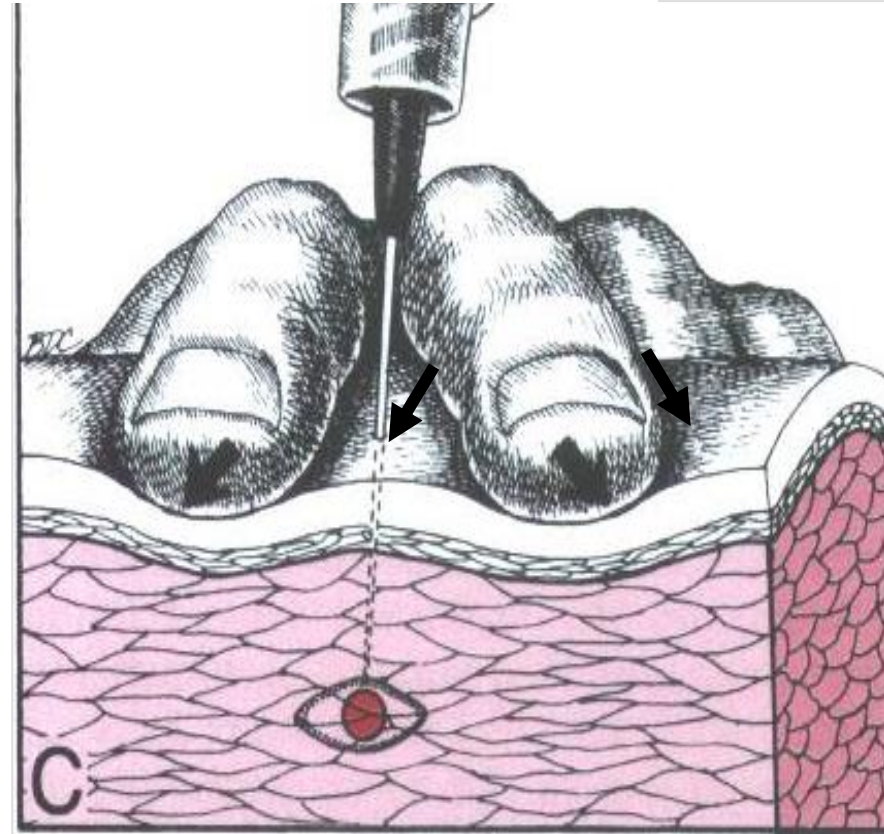
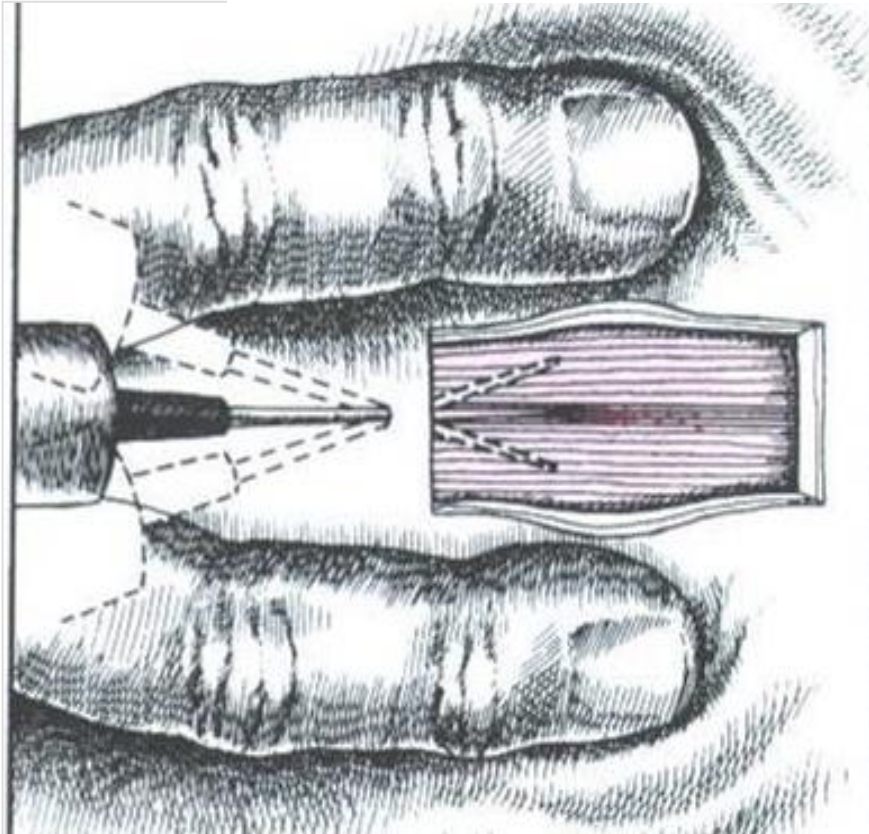


0,40 x 20 mm	0,40 x 40 mm	0,50 x 40 mm	0,60 x 25 mm	0,90 x 40 mm	0,60 x 60 mm
Quaddeln, Zähne Schilddrüse, kleinste Narben und Gelenke i. v.	Tonsillen, Zähne, Kieferhöhle, Keilbeinhöhle, Kopfganglien, Kleine Narben und Gelenke, Triggerpunkte	Knie, Schulter Facetten an BWS, Narben, Triggerpunkte, Ganglion cervicale superius,	Ggl. stellatum Epid. Sacrale bzw. Hiatus	Aufziehen aus Ampulle, Arteria femoralis	Hüfte, Prostata sowie suprapubische Injektionen, Facetten an HWS und LWS, ISG bzw. SIG, Technik nach Fervers und Shaw, Forr. sacralia

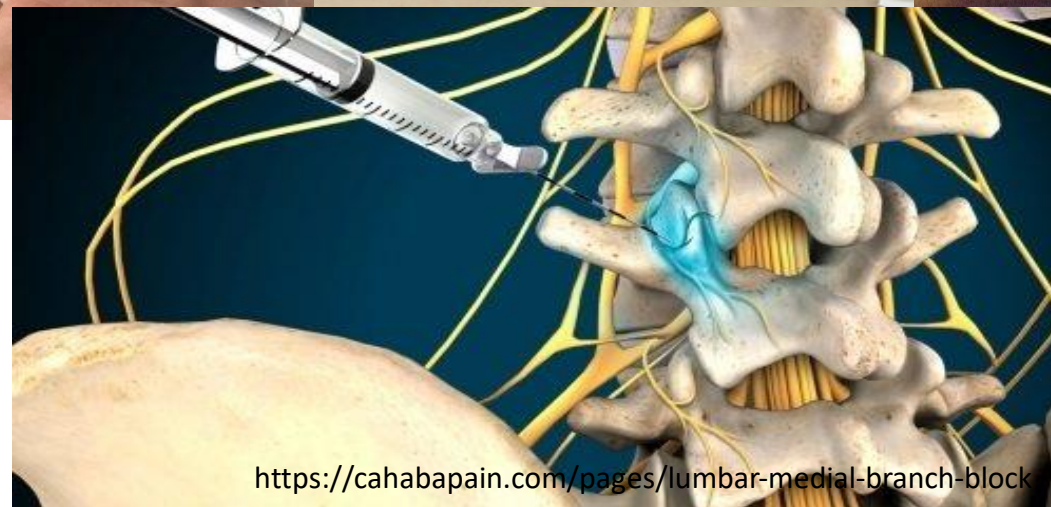
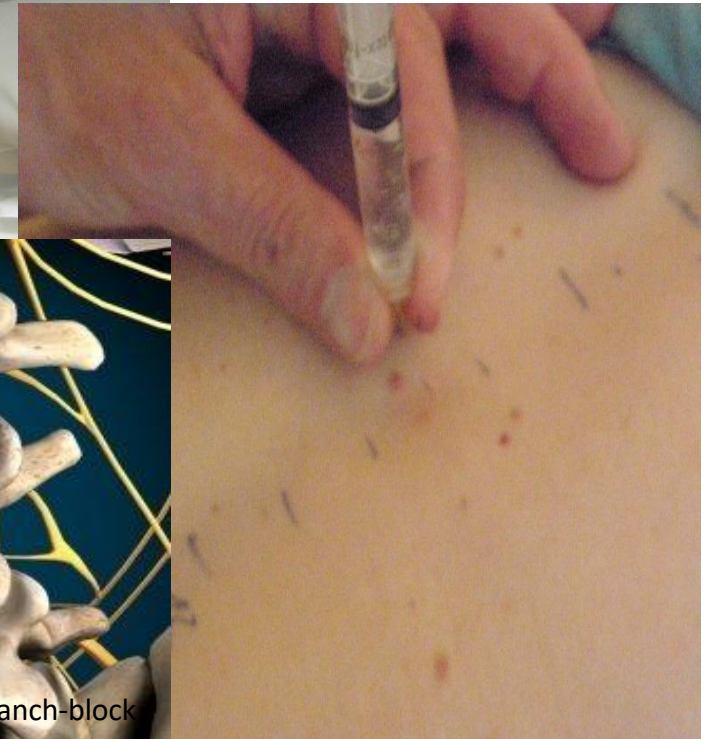
procaine



injection of procaine in trigger points



injection of procaine on facet joints (medial branch bloc)



<https://cahabapain.com/pages/lumbar-medial-branch-block>

injection of procaine on the ganglion oticum or stellatum

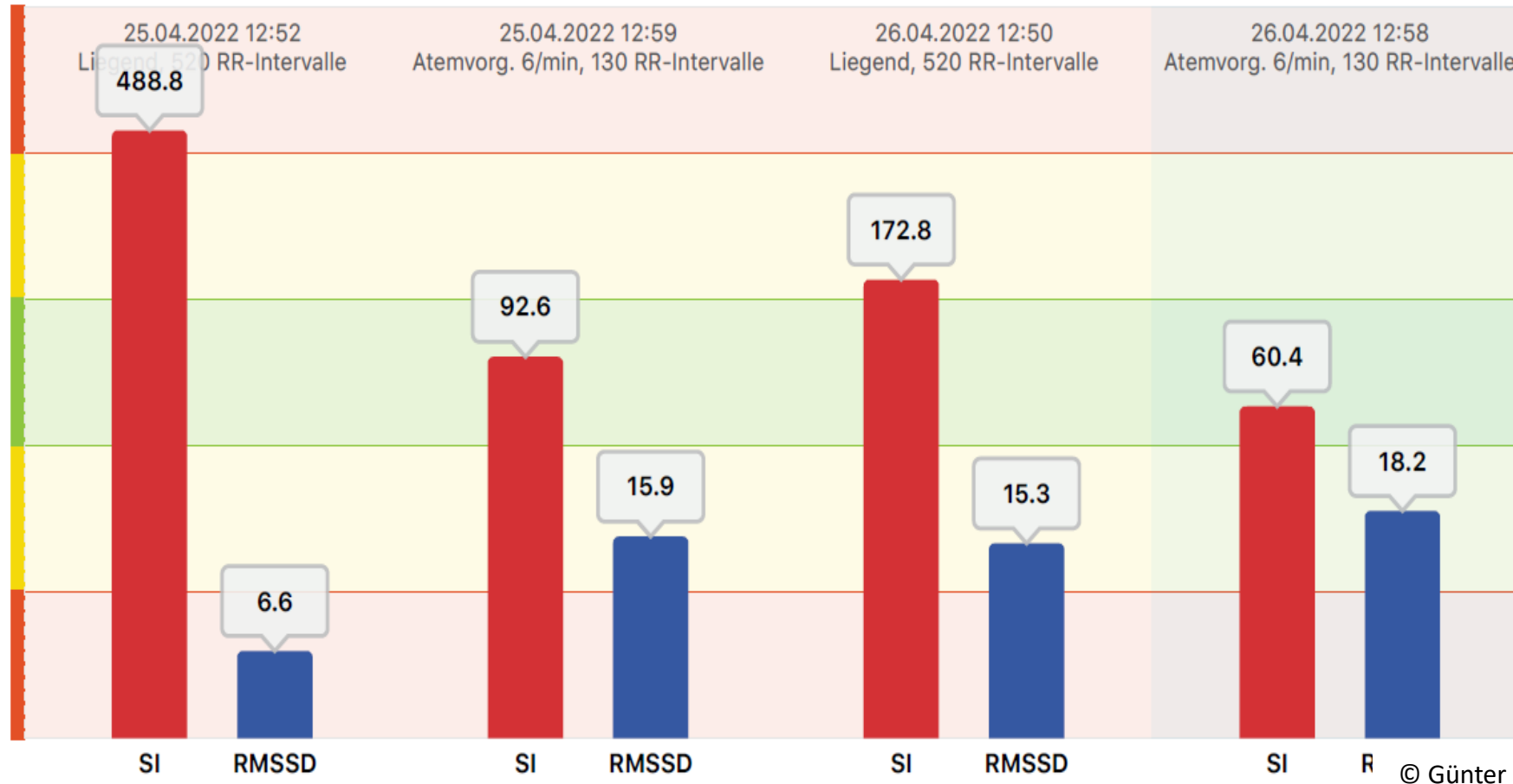


injection on the teeth



sympathicolysis after Neural-therapy

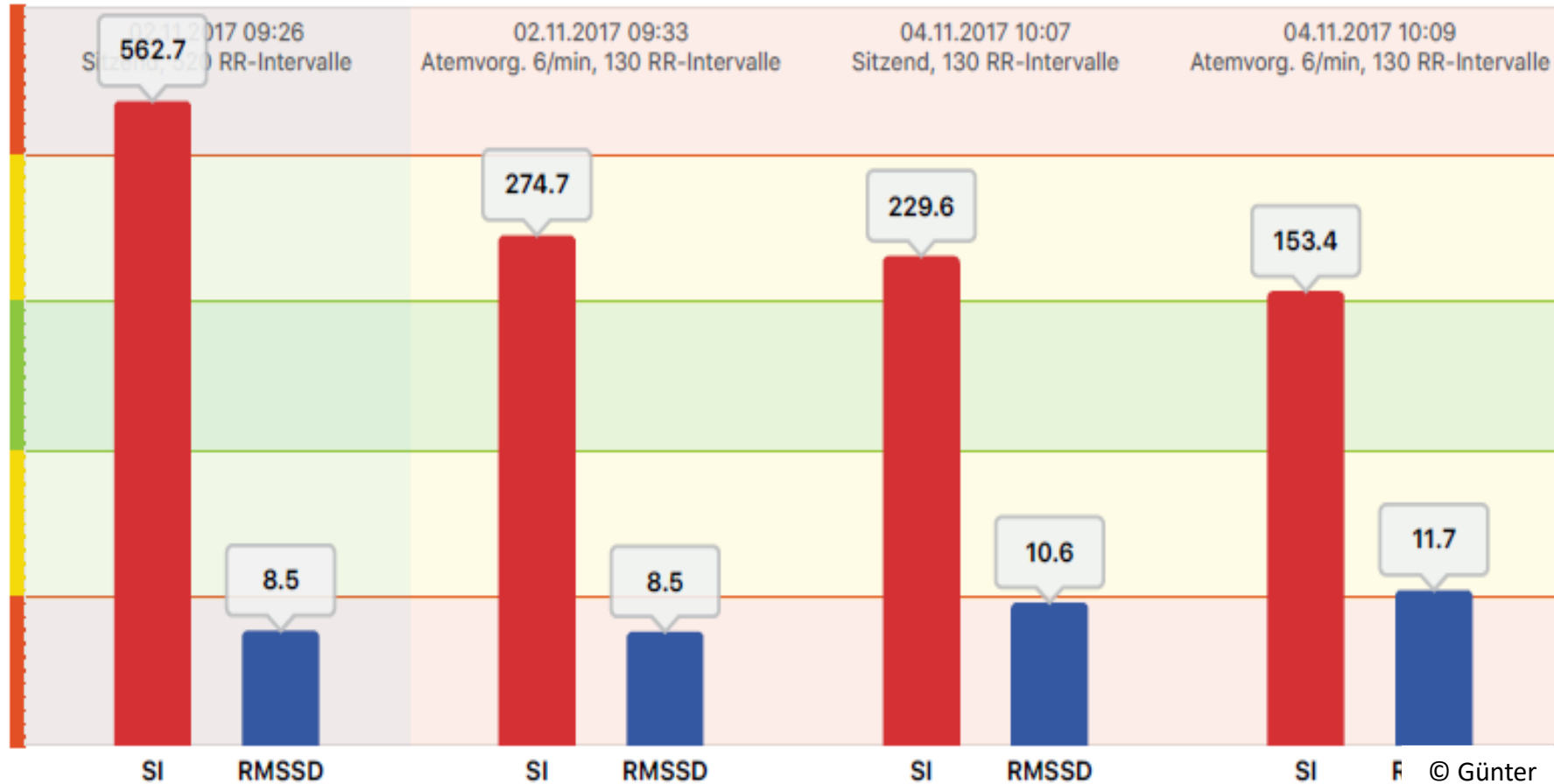
Hauptparameter der VNS Analyse



bad result (pessimi risultati)

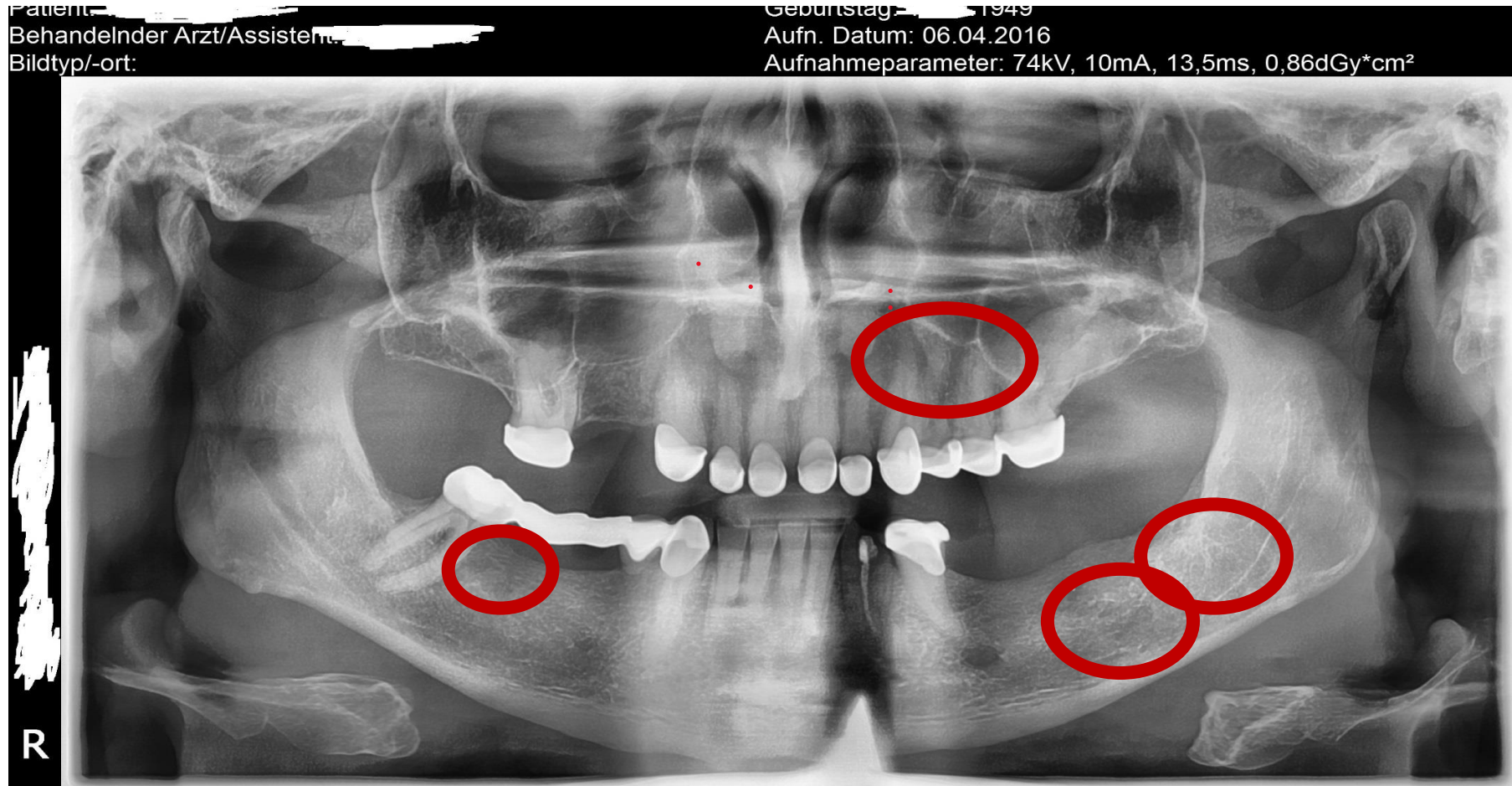
by inflammations

Hauptparameter der VNS Analyse



how to improve the effects of neural therapy?

(come migliorare gli effetti?)



how to improve the effects of neural therapy?

(come migliorare gli effetti?)

- cases with inflammation like otitis or necrosis of jaw bone need
 - surgical revisions
- in cases of chronic pain, rheumatism and fatigue use additional therapy with
 - ozone therapy

combine

Neural and Ozone-therapy

(combina terapia neurale con l'ozono terapia)

- standardized injection with
 - 1. step: injection of procaine
 - 2. step: injection of **ozone** 5-10µg/ml in muscles, near nervs and ganglions or 10-20µg/ml in foci, region of inflammation and joint with synovitis

cases of knee-joint



- intrapatellar approach
- 1. step: injection of procaine
(concentration: 1%,
volume: 5-10ml)

cases of knee-joint



- 2. step: injection
(slowly) of medical
ozone (concentration:
10-20 $\mu\text{g}/\text{ml}$, volume:
20ml)

cases of shoulder-joints



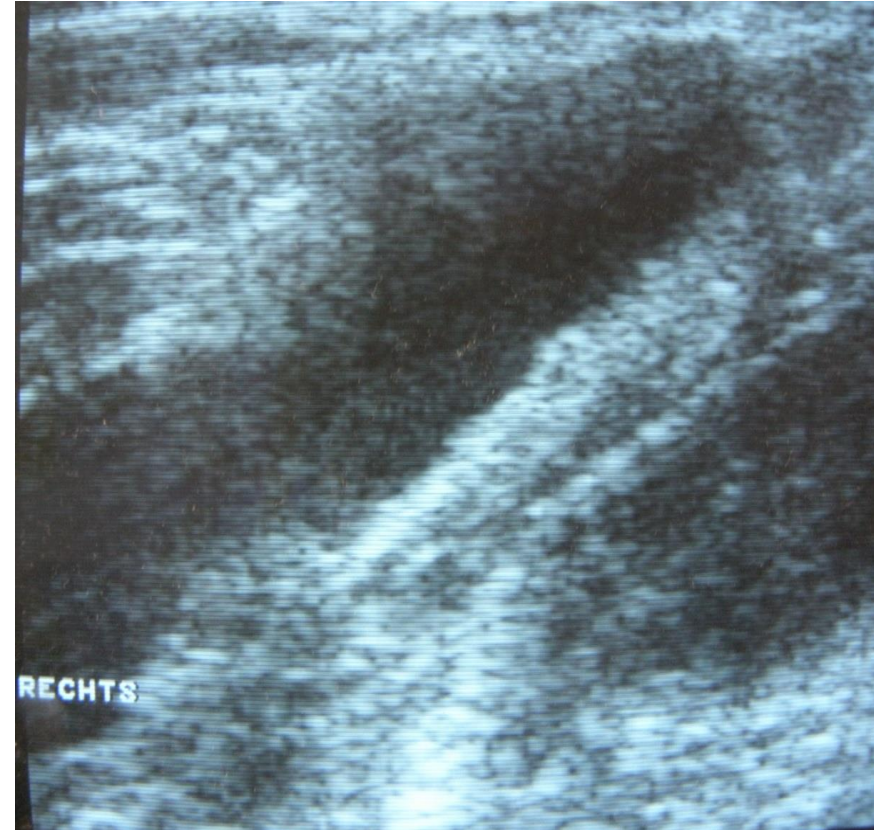
- dorsal approach
- here
- 2. step: injection (slowly) of medical ozone (concentration: 20 μ g/ml, volume: 15ml)

other cases of shoulder pain

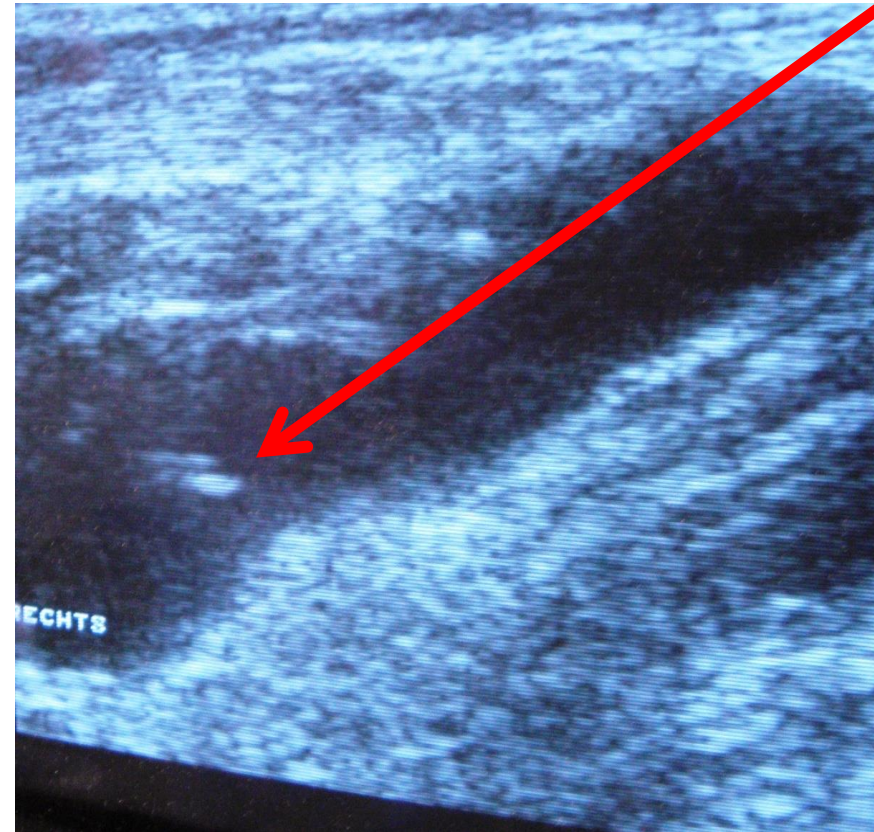


- cranial approach
- here
- 2. step: injection
(slowly) of medical
ozone (concentration:
20 μ g/ml, volume:
5ml)

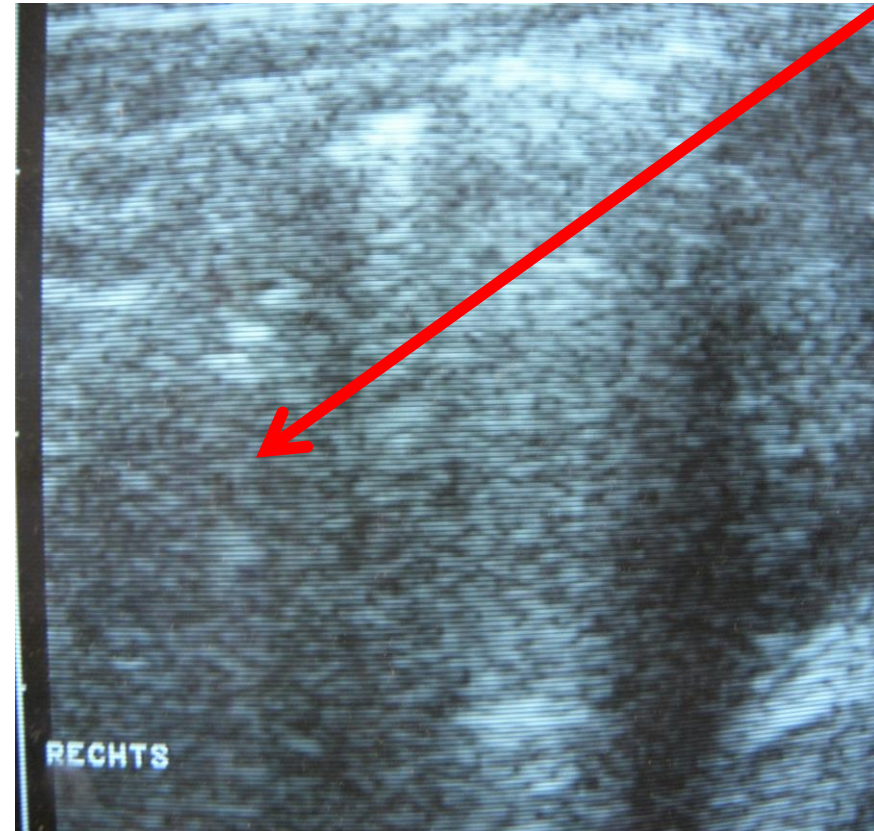
ultrasound guided method



ultrasound guided method



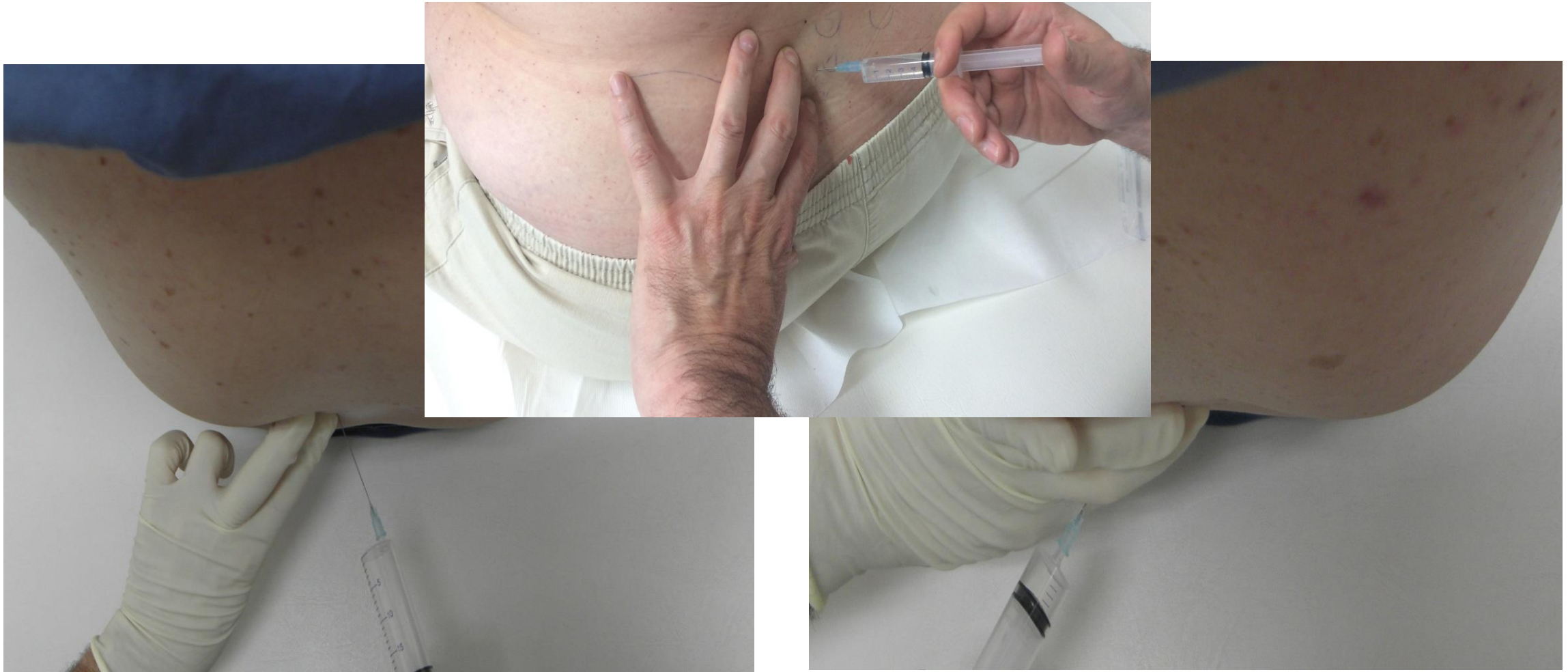
ultrasound guided method



injection of **ozone** on facet joints



injection of **ozone** on or in other joints



injection of **ozone** on or in other regions



Thank You for Your attention (Grazie per l'attenzione)



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