

# Clinical and diagnostic approach to neuropathic pain

Claudia Sommer



# Disclosures

- Educational talks for Alnylam, Teva, Merck, Pfizer
- Consulting for Algiavax, Bayer, Grifols, Immunic, Ipsen, Merz, Roche, Takeda
- Participation in clinical trials for Air Liquide, Novartis, UCB

# Agenda

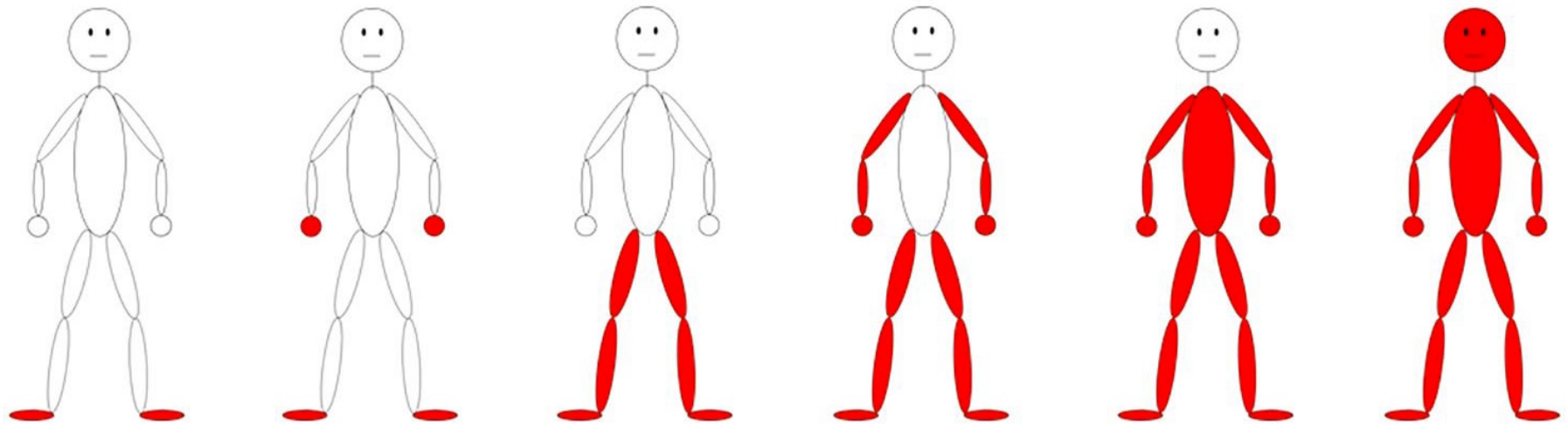
- Neuropathic pain definition
- General diagnostic workup in NP pain
  - Small fiber neuropathy
- Patient examples where the „cause“ of pain was identified

# Key messages

- Be aware of the current definition of neuropathic pain
- History and careful clinical examination are of utmost importance
- Look for the underlying disorder – do not forget genetic and rare autoimmune causes

# Neuropathic pain may come in many patterns!

## Pattern of SFN-associated pain



Patient cohort  
N=86

12 (14%)

15 (17%)

8 (9%)

9 (10%)

19 (22%)

23 (27%)

# Recommended reading

1. Baron R, Maier C, Attal N, Binder A, Bouhassira D, Cruccu G, Finnerup NB, Haanpää M, Hansson P, Hüllemann P, Jensen TS, Freynhagen R, Kennedy JD, Magerl W, Mainka T, Reimer M, Rice ASC, Segerdahl M, Serra J, Sindrup S, Sommer C, Tölle T, Vollert J, Treede RD. Peripheral neuropathic pain: a mechanism-related organizing principle based on sensory profiles. *Pain* 2017;158:261-72.
2. Colloca L, Ludman T, Bouhassira D, Baron R, Dickenson AH, Yarnitsky D, Freeman R, Truini A, Attal N, Finnerup NB, Eccleston C, Kalso E, Bennett DL, Dworkin RH, Raja SN. Neuropathic pain. *Nat Rev Dis Primers* 2017;3:17002.
3. Cruccu G, Sommer C, Anand P, Attal N, Baron R, Garcia-Larrea L, Haanpää M, Jensen TS, Serra J, Treede RD. EFNS guidelines on neuropathic pain assessment: revised 2009. *Eur J Neurol* 2010;17:1010-8.
4. Haanpää M, Attal N, Backonja M, Baron R, Bennett M, Bouhassira D, Cruccu G, Hansson P, Haythornthwaite JA, Iannetti GD, Jensen TS, Kauppila T, Nurmikko TJ, Rice ASC, Rowbotham M, Serra J, Sommer C, Smith BH, Treede RD. NeuPSIG guidelines on neuropathic pain assessment. *Pain* 2011;152:14-27.
5. Held M, Karl F, Vlckova E, Rajdova A, Escolano-Lozano F, Stetter C, Bharti R, Förstner KU, Leinders M, Dušek L, Birklein F, Bednarik J, Sommer C, Üçeyler N. Sensory profiles and immune-related expression patterns of patients with and without neuropathic pain after peripheral nerve lesion. *Pain* 2019;160:2316-27.
6. Maier C, Baron R, Tölle TR, Binder A, Birbaumer N, Birklein F, Gierthmühlen J, Flor H, Geber C, Hüge V, Krumova EK, Landwehrmeyer GB, Magerl W, Maihöfner C, Richter H, Rolke R, Scherens A, Schwarz A, Sommer C, Tronnier V, Üçeyler N, Valet M, Wasner G, Treede DR. Quantitative sensory testing in the German Research Network on Neuropathic Pain (DFNS): somatosensory abnormalities in 1236 patients with different neuropathic pain syndromes. *Pain* 2010;150:439-50.
7. Martínez-Lavín M. Fibromyalgia in women: somatisation or stress-evoked, sex-dimorphic neuropathic pain? *Clin Exp Rheumatol* 2021;39:422-5.
8. Scholz J, Finnerup NB, Attal N, Aziz Q, Baron R, Bennett MI, Benoliel R, Cohen M, Cruccu G, Davis KD, Evers S, First M, Giamberardino MA, Hansson P, Kaasa S, Korwisi B, Kosek E, Lavand'homme P, Nicholas M, Nurmikko T, Perrot S, Raja SN, Rice ASC, Rowbotham MC, Schug S, Simpson DM, Smith BH, Svensson P, Vlaeyen JWS, Wang SJ, Barke A, Rief W, Treede RD. The IASP classification of chronic pain for ICD-11: chronic neuropathic pain. *Pain* 2019;160:53-9.
9. Siedler G, Sommer C, Üçeyler N. Pain-related evoked potentials in patients with large, mixed, and small fiber neuropathy. *Clin Neurophysiol* 2020;131:635-41.
10. Üçeyler N, Vollert J, Broll B, Riediger N, Langjahr M, Saffer N, Schubert AL, Siedler G, Sommer C. Sensory profiles and skin innervation of patients with painful and painless neuropathies. *Pain* 2018;159:1867-76.