Clinical considerations on the use of IgG in neuropathies

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Disclosures

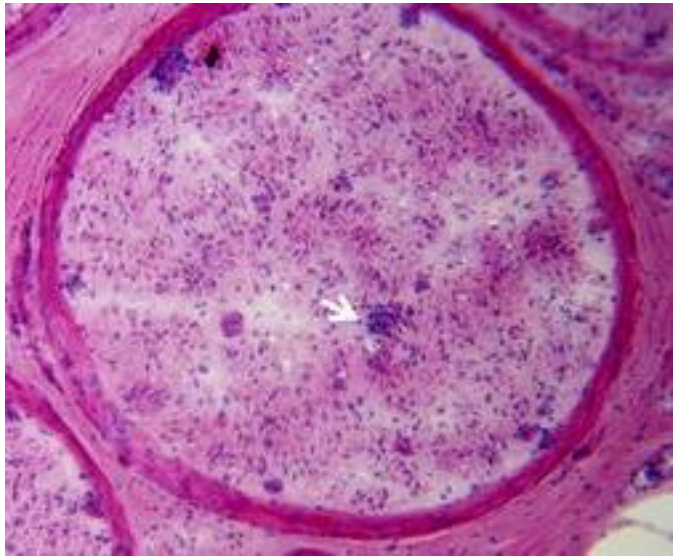
In the last 3 years honoraria for talks and advisory boards from Argenx, CSL Behring, Grifols, LFB Pharma, Pfizer, Takeda, UCB

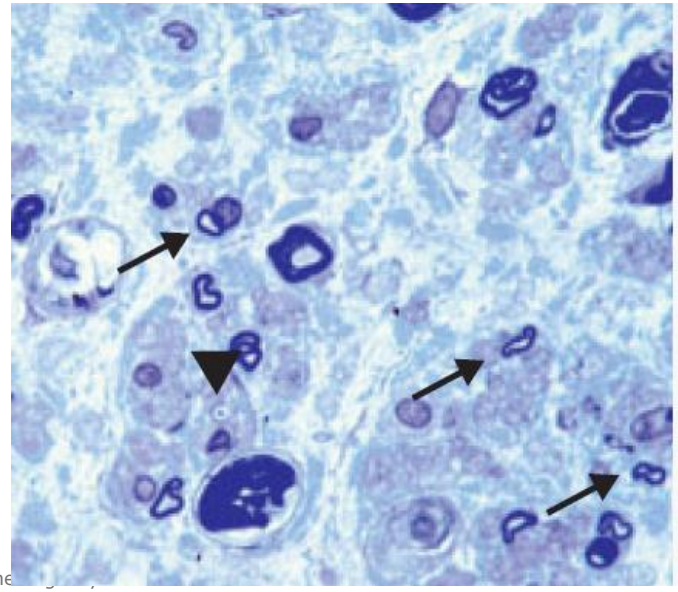
Member of DGN, DGKN, Peripheral Nerve Society, World Federation of Neurology

Immune-mediated diseases of the PNS

acute
Guillain-Barré syndrome
- demyelinating
- axonal (AMAN, AMSAN)
Miller Fisher syndrome

chronic
CIDP
MMN
Paraprot. Neuropathy
(Vaskulitische Neuropathie)





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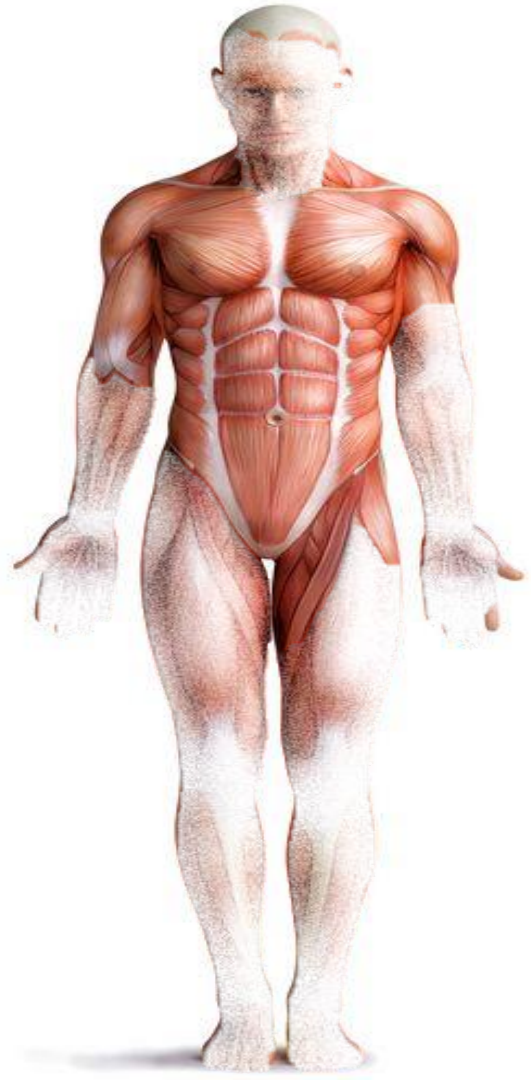
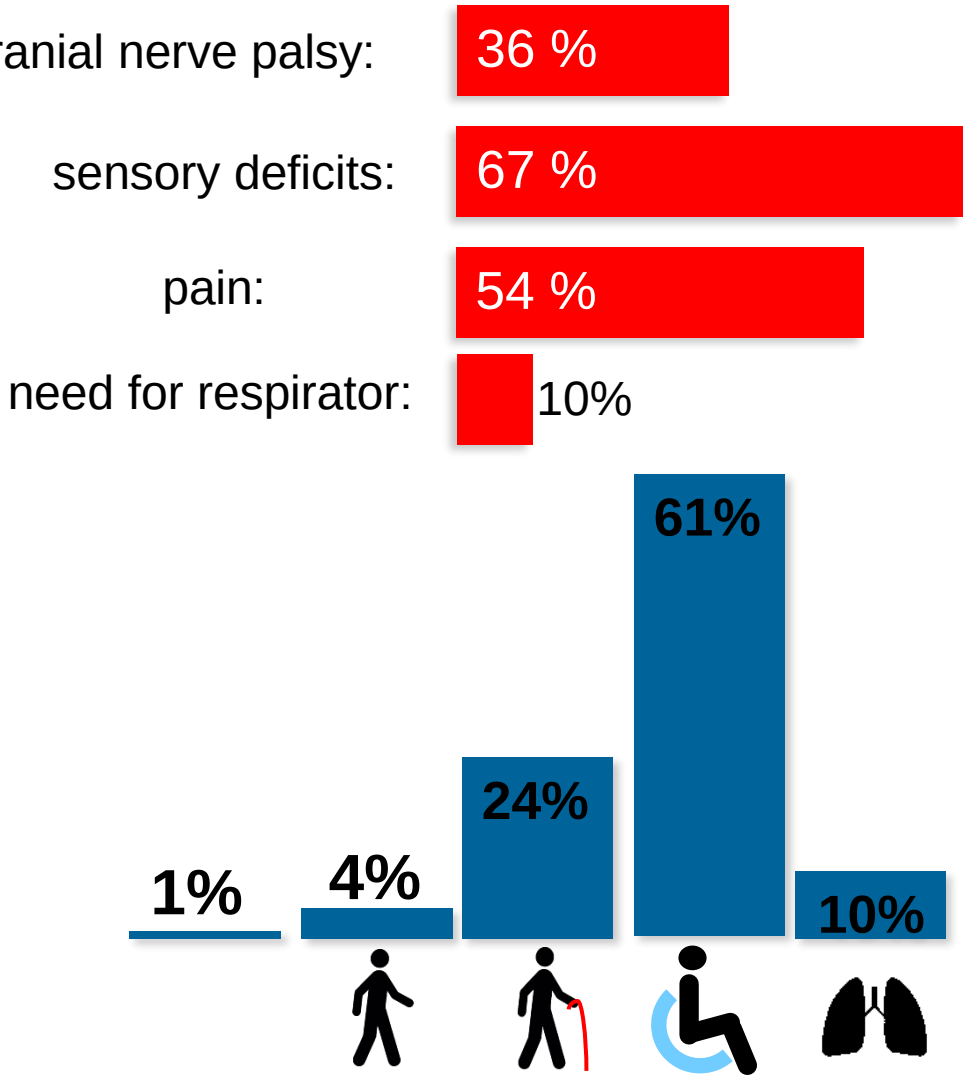
Treatment of immune-mediated neuropathies

	Steroids	PE	IVIg
• Guillain-Barré syndrome	x	√	√
• CIDP	√	√	√
• Multifocal motor neuropathy (MMN)	x	x	√
• Paraproteinaemic polyneuropathy	√	√	√

Guillain-Barré syndrome





Fokke et al., Brain 2014

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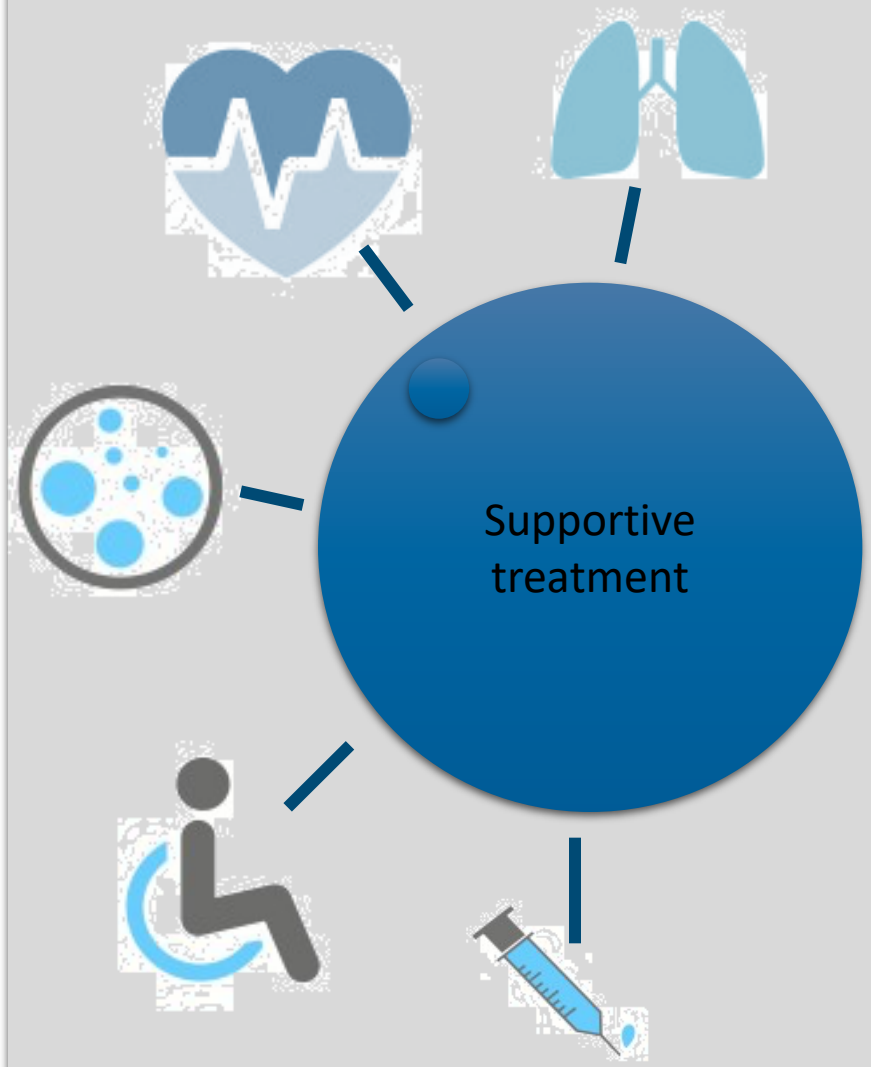
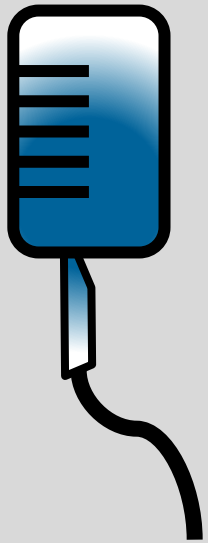
Guillain-Barré syndrome: treatment

supportive:



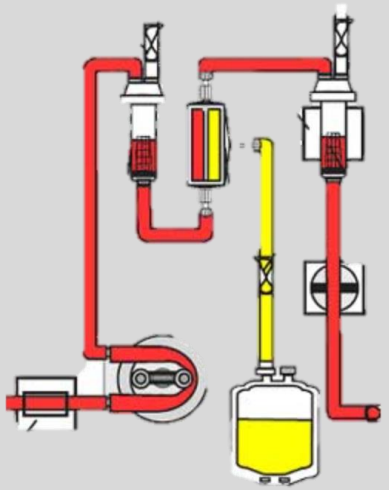
causal:



IVIg

5days 0,4g/kg

bodyweigh



Plasmapheresis

4-6 cycles

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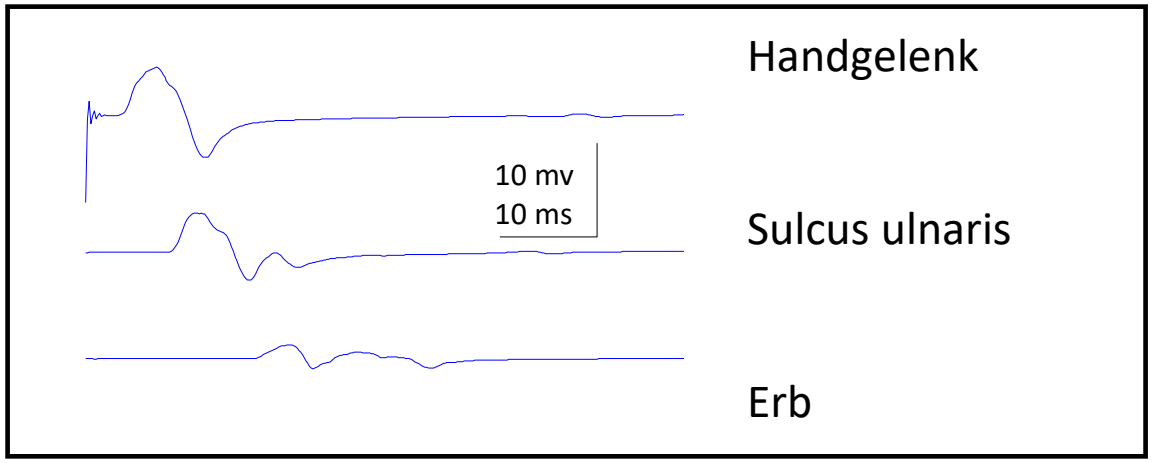
Multifocal motor Neuropathy (MMN)

Rare, prevalence approx. 1:1,000,000

Slowly progressive paresis with only slight or no sensory deficits

Electrophysiologically characterized by the presence of persistent conduction blocks in motor nerves



Often associated with IgM antibodies against gangliosides GM1, GD1a, and GD1b (Yuki et al., 2002; Nobile-Orazio, 2003)

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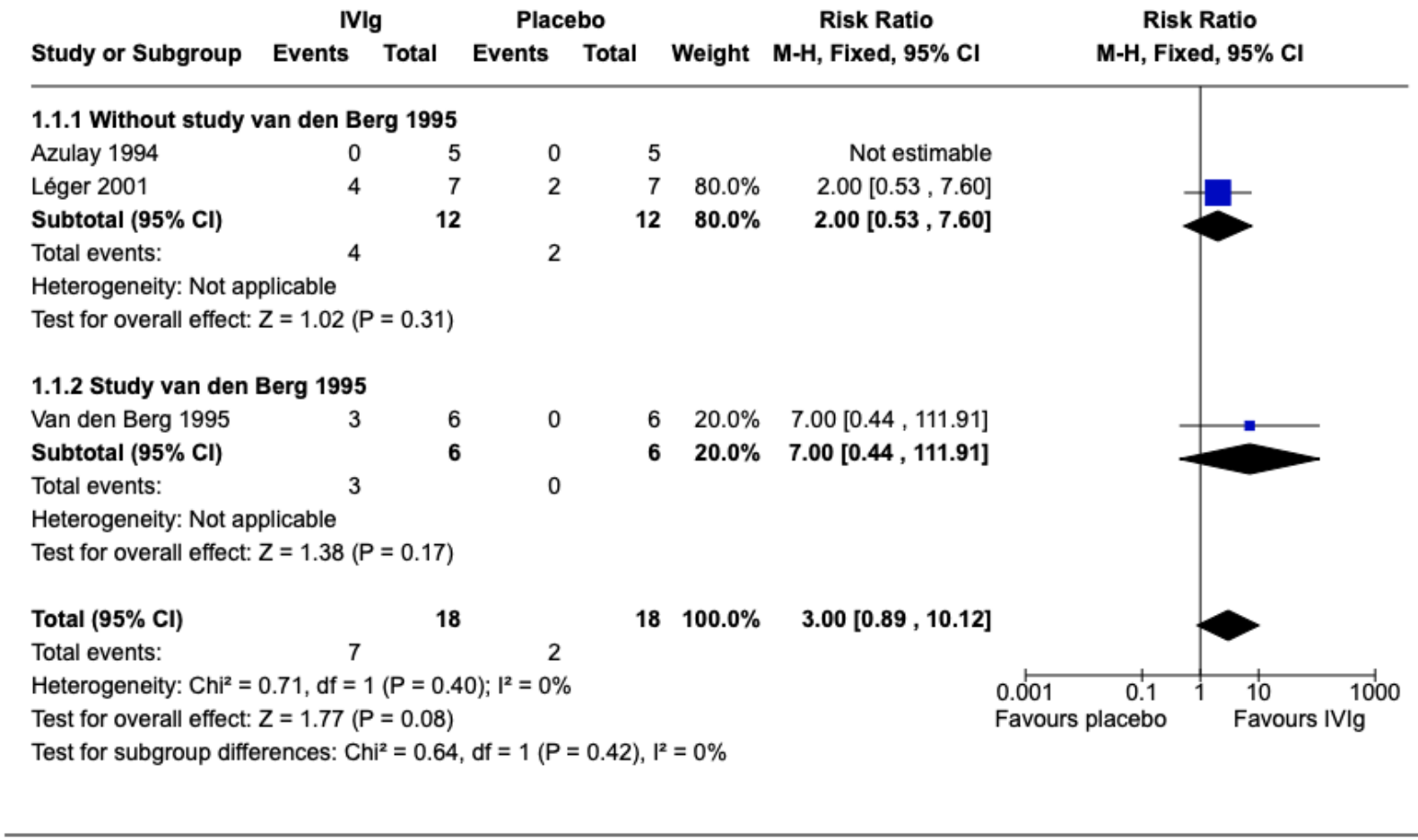
IVIG in MMN

- IVIG mainstay of MMN treatment
- Best researched treatment

Figure 3 Open in figure viewer



IVIg versus placebo. Proportion of participants with an improvement in disability as determined and defined by the study authors. In all forest plots, the 'Total' columns show the number of observations.

Keddie S, Eftimov F, van den Berg LH, Brassington R, de Haan RJ, van Schaik IN. Immunoglobulin for multifocal motor neuropathy. Cochrane Database of Systematic Reviews 2022, Issue 1. Art. No.: CD004429. DOI: 10.1002/14651858.CD004429.pub3. Accessed 02 March 2025.

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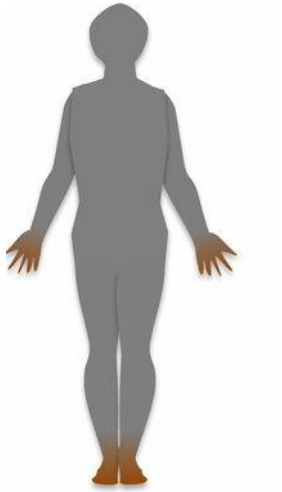
SCIG in MMN

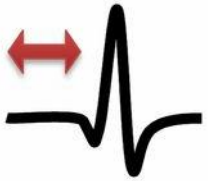
Reference	Study Type and Duration	Participants	Outcome of SCIG Therapy
Eftimov et al.	Prospective open-label study, 6 months	10 patients, stable on IVIG	4 patients deteriorated, 4 patients stable
Harbo et al.	Randomized single-blind study, two crossover periods (IVIG and SCIG)	9 patients, stable on IVIG	(1) No difference in muscle strength or SF-36 score (2) 4 patients preferred SCIG, 2 IVIG, 3 had no preference
Misbah et al.	Prospective open-label study, 6 months	8 patients, stable on IVIG	No change in muscle strength or quality of life
Gentile et al.	Retrospective, follow-up of 6.4	8 patients, stable on IVIG	Stable or improved
Al-Zuhairy et al.	Randomized, observer-blinded crossover study of fSCIG and SCIG, 24 weeks for each therapy	20 patients, stable on conventional SCIG	No changes in strength between two SCIG formulations

Claytor, Benjamin, David Polston, and Yuebing Li. "Multifocal Motor Neuropathy: A Narrative Review." *Muscle & Nerve*(2025).

Paraproteinemic Neuropathy



DADS



increased dmL

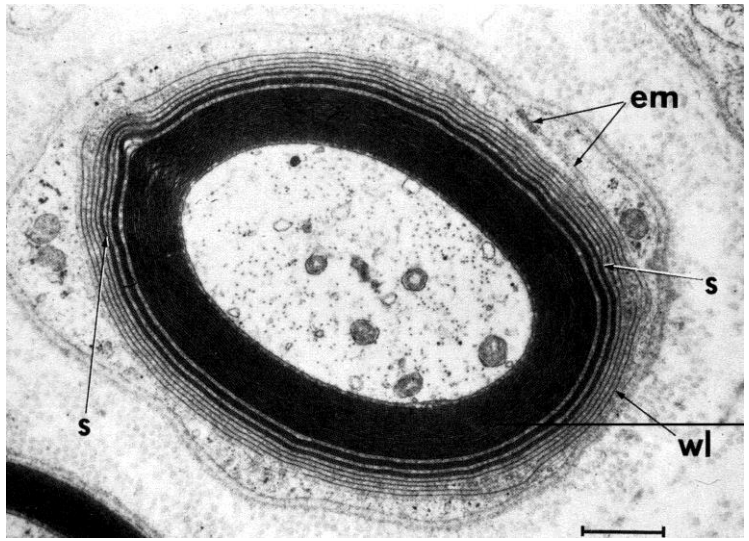
Paraprotein in 3% of all 70-year-olds

- - Of these, approximately 50% have neuropathy
- - Malignant underlying disease in about 1/3 (Multiple Myeloma, Osteosclerotic Myeloma, Waldenström's Disease, Primary Amyloidosis, Cryoglobulinemia)

Types and Clinical Manifestations:

- **- 40-50% IgG/IgA:** Clinically similar to CIDP
- **- 50% IgM, of which 50% have MAG antibodies:**
- - Clinically predominantly sensory, chronically progressive, poorly treatable

- Cryoglobulinemia: Axonal, predominantly sensory, symmetrical or multifocal



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SCIG and IVIG in Paraproteinemic Neuropathy

No RCT for SCIG

IVIG in this condition not well established (low evidence)

Rather monoclonal abs preferred

Thank you for your attention

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