



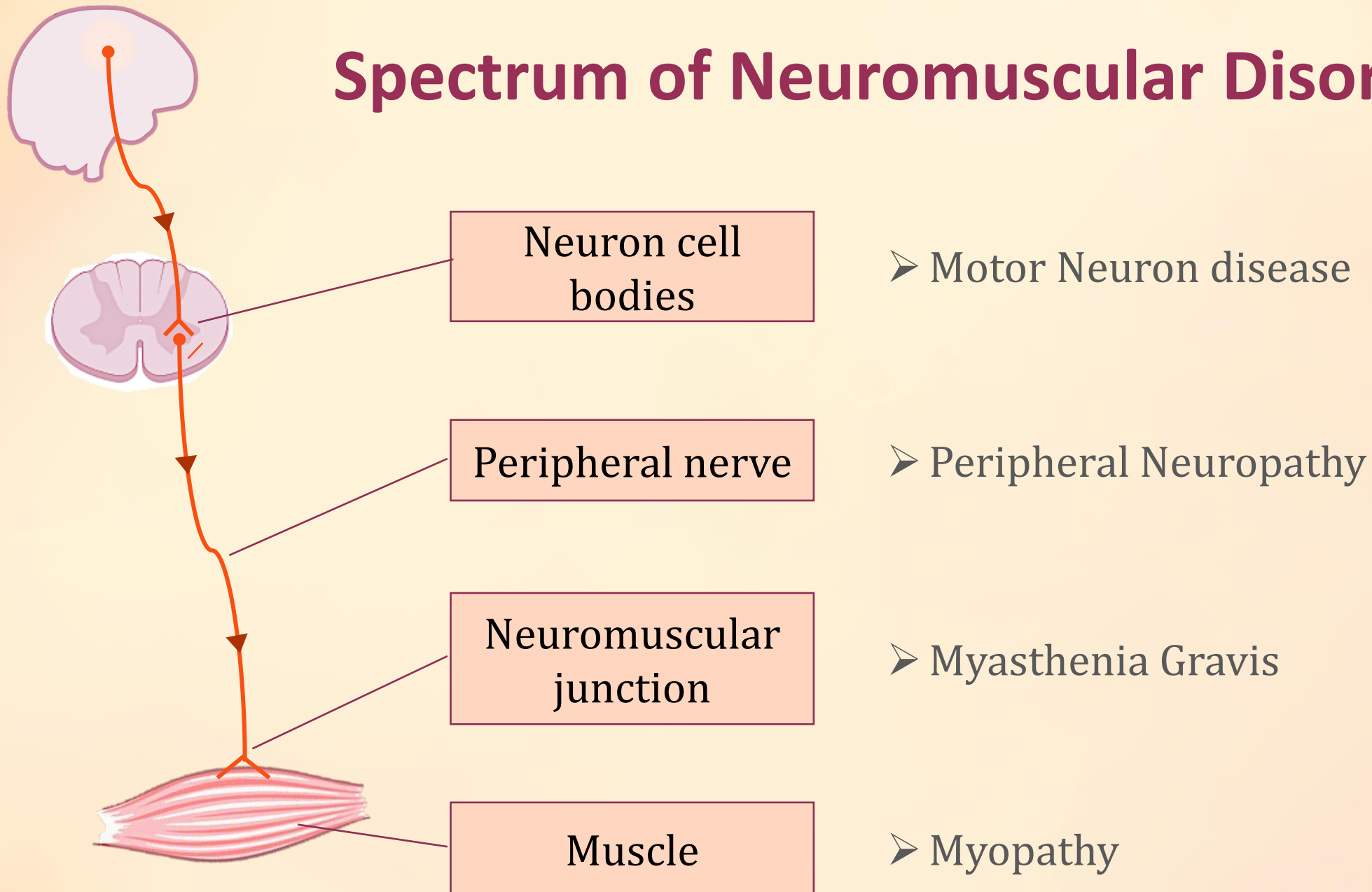
Spectrum of Neuromuscular Disorders and Peripheral Neuropathy

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- Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changing in treatment and drug therapy are required.
- While the enormous advances in imaging, genetics, molecular biology, and pharmacology have improved our capacity to diagnose and treat disorders of the nervous system, they have not reduced the necessity to understand basic principles of anatomy and physiology, to obtain the correct history, perform a capable neurological examination and to cohere them based on a body of clinical knowledge and experience.
- Neurology is the broad field of clinical study of the nervous system.

Spectrum of Neuromuscular Disorders



Motor Neuron Disease

- MND is a group of disorders that affect the motor nerves controlling voluntary muscle activity.
- It is a progressive and eventually fatal condition affecting motor neurons and causing the motor function to stop. It doesn't affect the sensory neurons.
- Understanding its types, courses, symptoms and treatment options are crucial for management.

Several Types Affecting Different Motor Neurons

The main types are -

1. Amyotrophic Lateral Sclerosis ALS

- 60-85%
- A combination of UMN and LMN dysfunction

2. Progressive Lateral Sclerosis PLS

- UMN dysfunction with substantial muscle spasticity.

3. Progressive Muscular Atrophy PMA

- LMN dysfunction with flaccid weakness and muscle atrophy.

4. Progressive Bulbar Palsy –PBP

- 2nd most common
- Exact cause is unknown.
- Genetic mutation
- Exposure to environmental toxins i.e. heavy metal, pesticides.

Peripheral Neuropathy

- The clinician is faced with several problems that can be solved sequentially when dealing with PN.
 1. Establishing the existence of disease of the peripheral nervous system
 2. Distinguishing by clinical examination which of the main topographic syndromes it represents
 3. Determining by examination, electromyography (EMG) and biopsy
 4. Establishing the temporal course of disease
- When taken together , these features limit the likely diagnosis from a vast list of possibilities

Myasthenia Gravis

- Myasthenia Gravis is the archetypic disorder of both the neuromuscular junction and autoantibody mediated disease.
- Present with fatigable weakness of skeletal muscles.
 1. Ig G1-dominant antibodies to acetylcholine receptors
 2. Antibodies to muscle-specific tyrosine kinase MuSK - IgG4
 3. ? New antigenic targets

Myasthenia Gravis, cont;

- The incidence and prevalence of MG are increasing particularly in the elderly
- Therapeutic options for Myasthenia Gravis have increased notably in the last 15 -20 years.
- Prognosis has dramatically changed, not only by a reduction in mortality rate, but also because most of the patients can have a completely normal quality of life.

Myopathy

- Myopathies are disorders of the skeletal muscles affecting the structure or channel.
- Cause them to function less efficiently, inherited or acquired.
- Symptoms may be present from birth or develop later on.
- Symptoms include muscle cramps, muscle pain, stiffness, fatigue and weakness.



Thank You