



Clinical case studies:

Myasthenia gravis & Anaphylaxis

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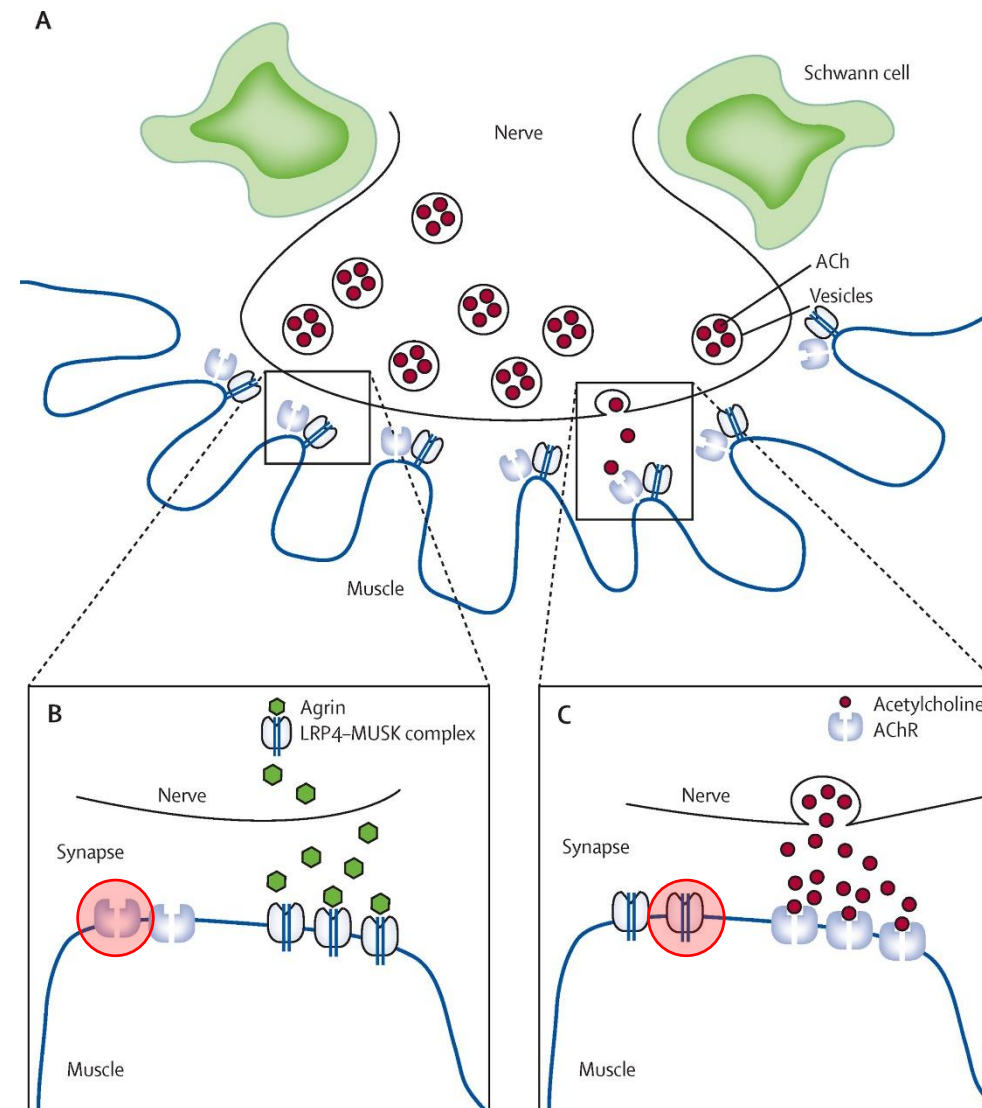
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What is myasthenia gravis?

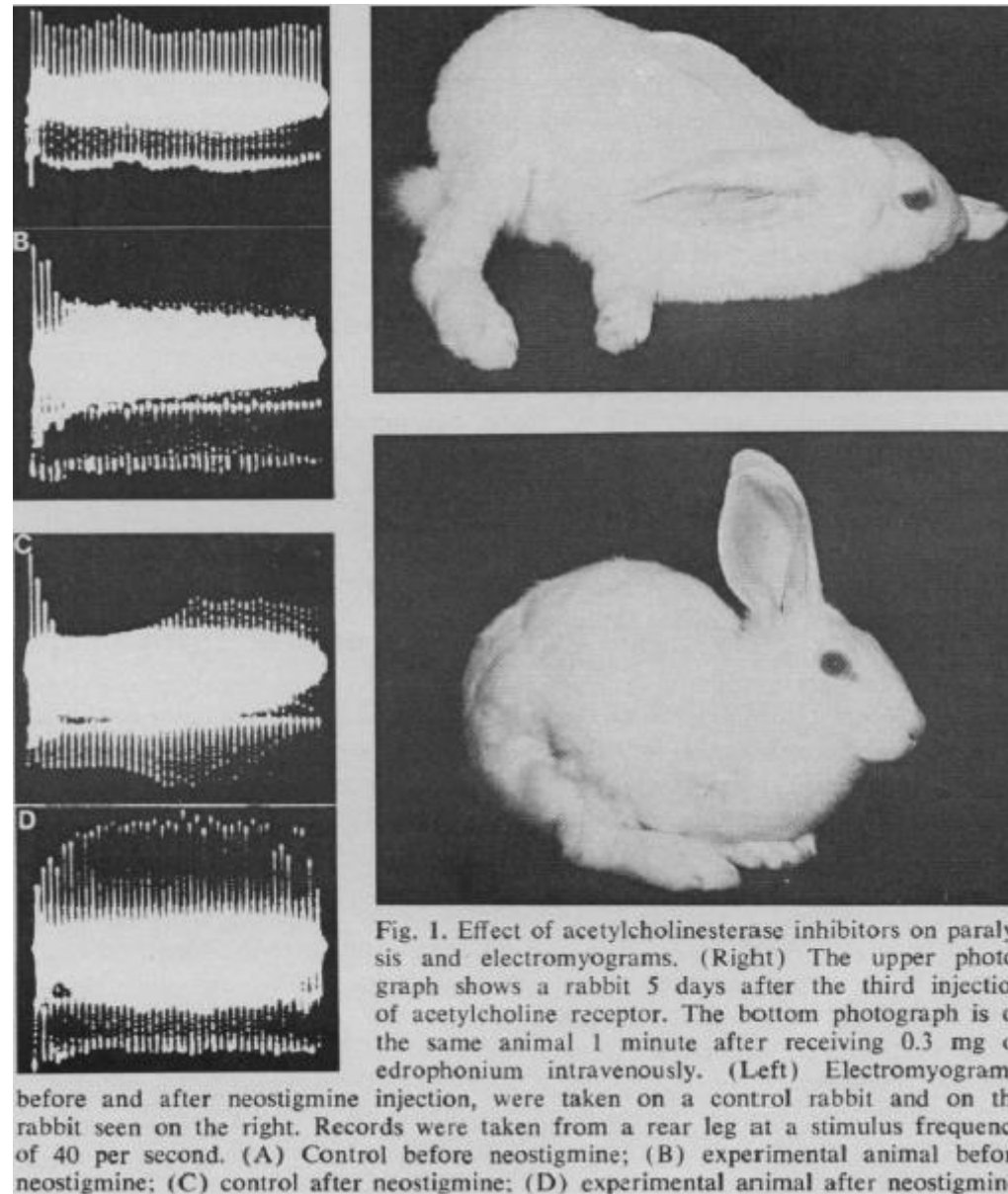
- An autoimmune disease that is characterised by muscle weakness and fatigue.
- The name was derived from Greek language and means (myo: muscle, asthenia: weakness) and the Latin language (gravis: serious).
- Clinically, myasthenia gravis manifests with fluctuating fatigability and weakness affecting a variety of muscle groups.



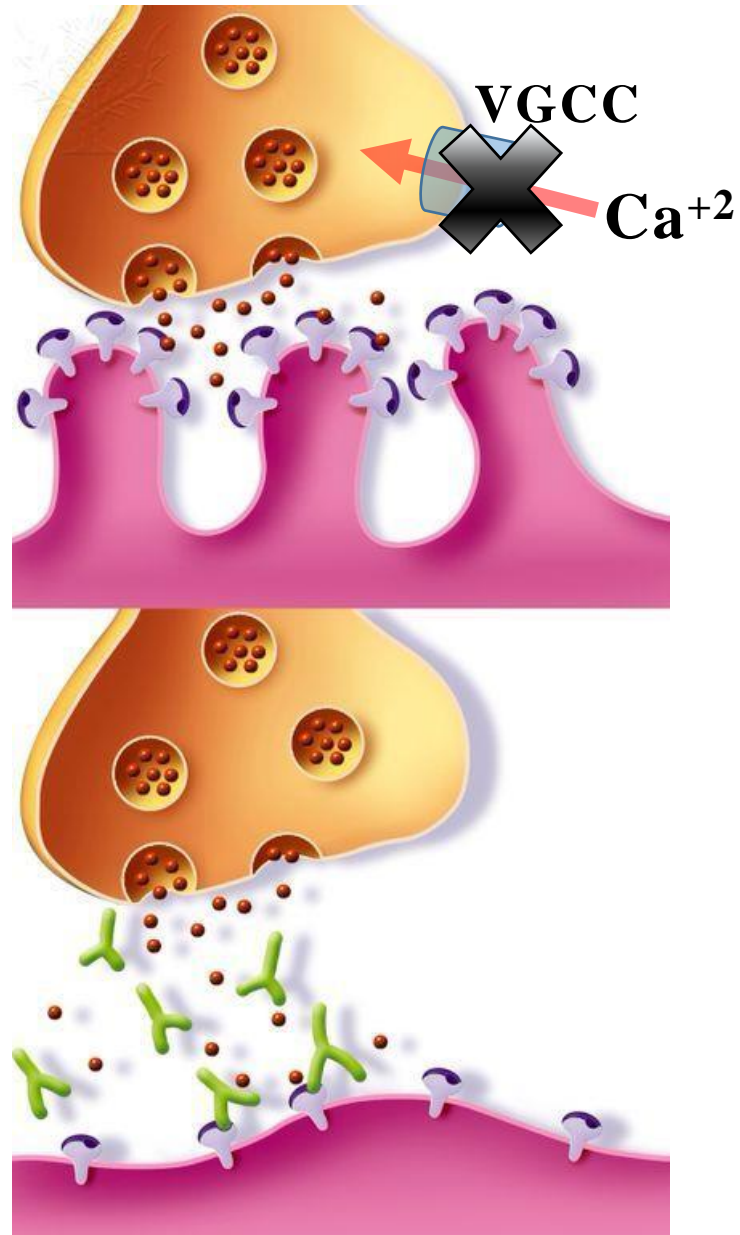
The neuromuscular junction



Source: Gilhus NE and Verschuuren JJ. *Lancet Neurology*, 2015



Lambert-Eaton Myasthenic Syndrome





How to manage MG?

- Therapy should be tailored to the individual patient, and can include symptomatic drug therapy, immunosuppressive drug therapy, thymectomy and/or supportive therapy.

Why?

- MG is a rare autoimmune disease, large cohorts are lacking.
- The aim of treatment should be normal or near-normal function, which in most patients requires long-term immunosuppressive treatment with a drug combination that is individualized for the patient for optimal effectiveness.



Case #49. Acute systemic anaphylaxis

- Anaphylaxis is a systemic type 1 (IgE-mediated, immediate) HSR.
- The word anaphylaxis is recognized and feared by most health care providers because of its association with potential death from cardiovascular collapse or asphyxiation caused by laryngeal edema.
- As with other type I HSR examples, the first exposure to an allergen in genetically predisposed individuals will lead to priming (sensitization).
- Re-exposure to the same allergen systemically will cause the cross-linking of IgE that are bound to its high-affinity receptors on mast cells and subsequent release of inflammatory mediators including histamine.



Case #49. Acute systemic anaphylaxis

- A 2-year-old c/o vomiting, shortness of breath and swelling in the face followed by lethargy and loss of consciousness over a short time following a meal containing peanut butter. P/E revealed severe hypotension, tachycardia, tachypnea and wheezing. Previous history revealed an episode of allergic reaction to peanut butter.
- The patient was diagnosed with anaphylactic shock and was given epinephrine, antihistamine, steroid and IV fluids with continuous monitoring of the vital signs.
- The patient “remained well and was discharged home with an Epi-Pen. His parents were instructed **to avoid** giving him foods containing peanuts in any form, and were asked to bring him to the Allergy Clinic for further tests”.