**Myasthenia Gravis (MG)**

Condensed Version

**Presentation:**  Exercise intolerance, weakness, regurgitation
- **Congenital MG** – RARE Jack Russell, Smooth-haired Min. Dachshund
- **Acquired MG** – German Shepherd, Golden Retriever, Labrador retriever, Abyssinian cats

**3 Clinical syndromes**
1. **Focal MG** – megaesophagus, facial weakness, laryngeal paralysis
2. **Generalized MG** – Generalized weakness, para or tetraparesis, recovery after rest, normal proprioception, megaesophagus
3. **Myasthenic crisis** – acute tetraparesis, megaesophagus, resp. distress

**Test(s) of choice:**
- Tensilon® (endrophonium) test
  - Ultra-short-acting acetylcholinesterase – prolongs availability of acetylcholine
  - Improvement of gait disturbances within a minute
  - False positives and false negatives
- Acetylcholine receptor antibodies – Gold Standard - Acquired form only

**Rx of choice:**
- Cholinesterase inhibitors- Inhibits breakdown of acetylcholine
  - Pyridostigmine (Mestinon®)
- Address megaesophagus if present, to minimize risks of aspiration pneumonia

**Pearls:**
- **Congenital MG** = inadequate # of postsynaptic nicotinic acetylcholine receptors - RARE genetic defect
- **Acquired MG** = autoimmune disease
  - Antibodies bind postsynaptic acetylcholine receptors in striated muscle, causing them to be internalized

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**Zuku Review FlashNotes™**

**Classic Question(s)**

A 6 year old Female, spayed German Shepherd is presented with exercise intolerance and regurgitation. Name 4 tests that should be performed.

Describe the treatment of a dog with myasthenia gravis, megaesophagus, and aspiration pneumonia.

What messages and expectations are important to communicate to the owner regarding the long term outlook for this dog?