

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

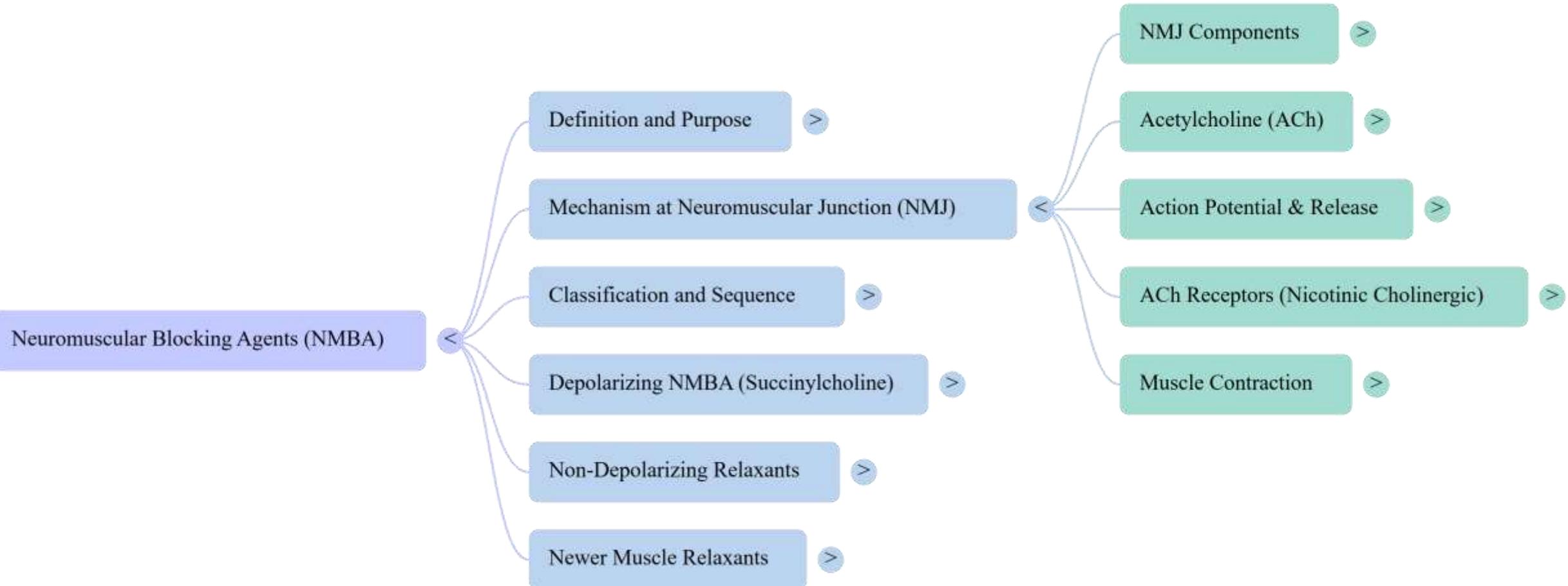
Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi. Coimbatore -641035

COURSE NAME : PHARMACOLOGY(ER20-21 T)

YEAR : DPHARM-II YEAR

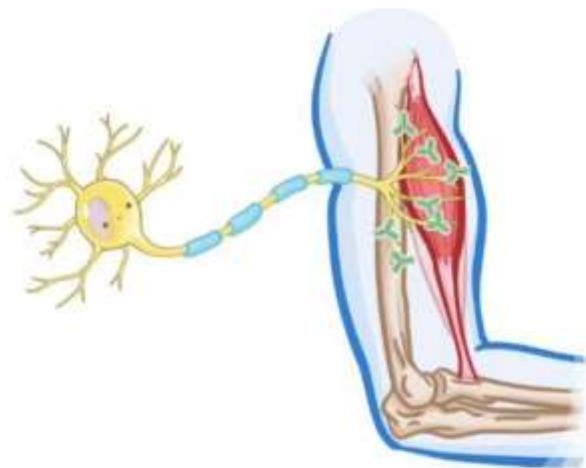
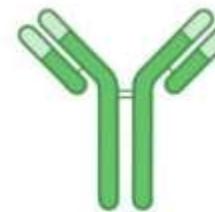
TOPIC : MYSTHENIA GRAVIS

MINDMAP

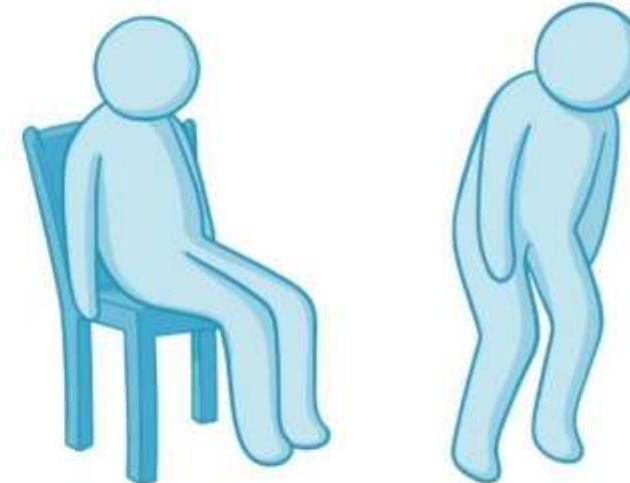


MYASTHENIA GRAVIS

* CHRONIC AUTOIMMUNE DISEASE caused by **ANTIBODIES**



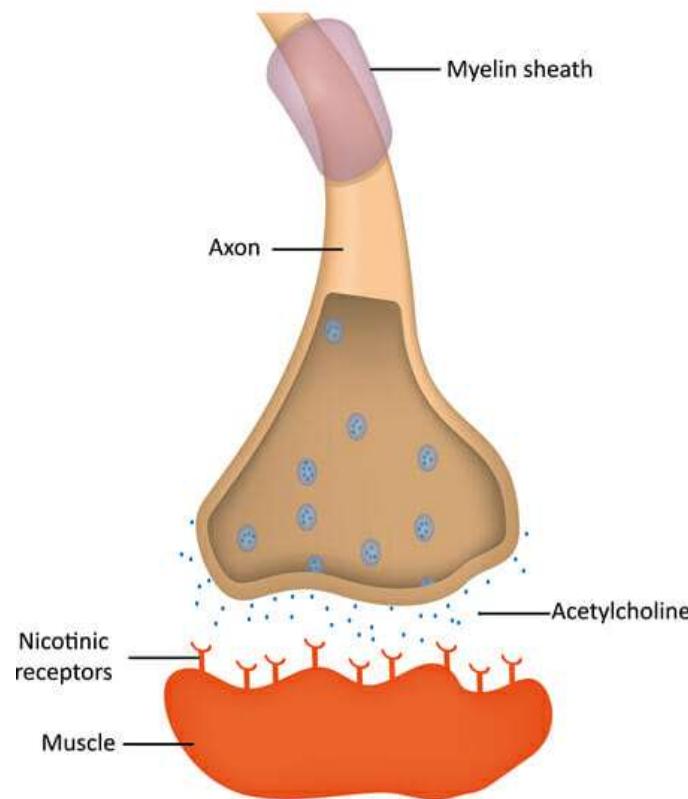
BIND TO & DESTROY
NEUROMUSCULAR COMMUNICATION



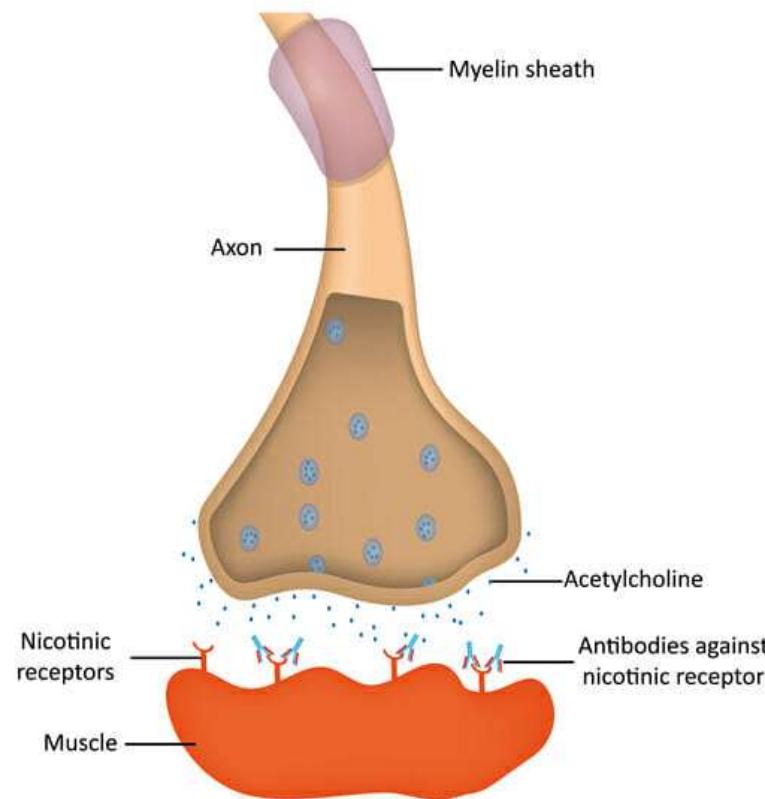
FATIGUE & MUSCLE WEAKNESS
due to IMPAIRED MUSCLE CONTRACTIONS

Myasthenia Gravis

Normal Neuromuscular Junction



Myasthenia Gravis



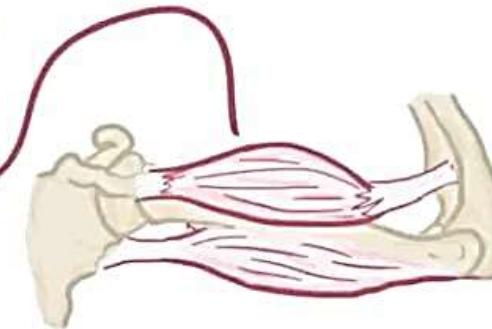
WAKE UP
FEELING FINE

↓
END THE DAY
FEELING WEAK

Sometimes from
REPETITIVE MOVEMENTS
e.g. chopping vegetables

"MUSCLE" "WEAKNESS"
MYASTHENIA GRAVIS

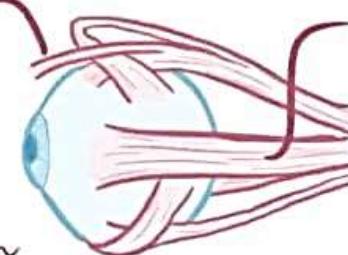
* AUTOIMMUNE DISEASE
AFFECTING
SKELETAL MUSCLE



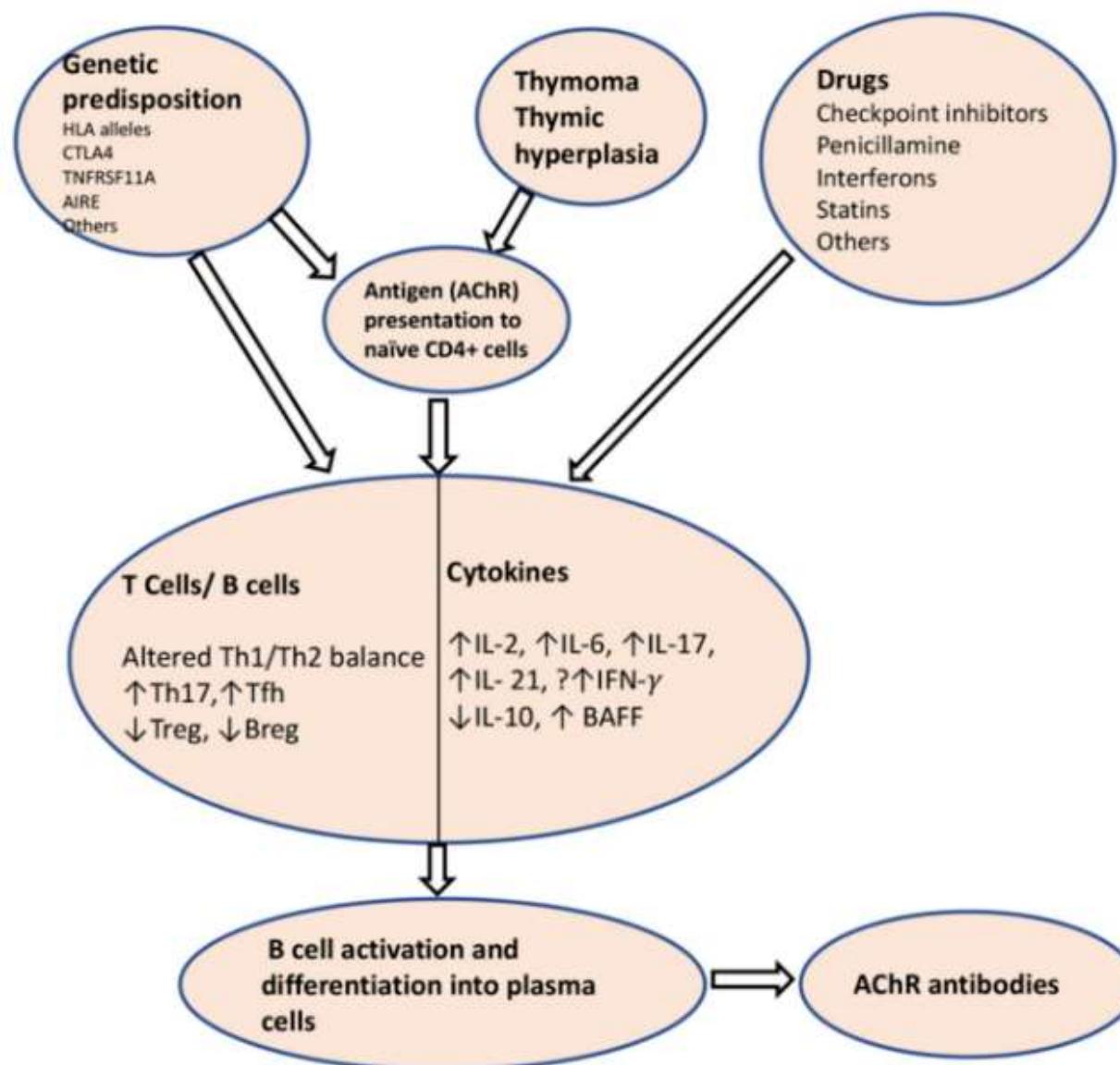
EXTRAOCULAR MUSCLES

CONTROLS EYELID
↓
PTOSIS
~ DROOPING EYELIDS ~

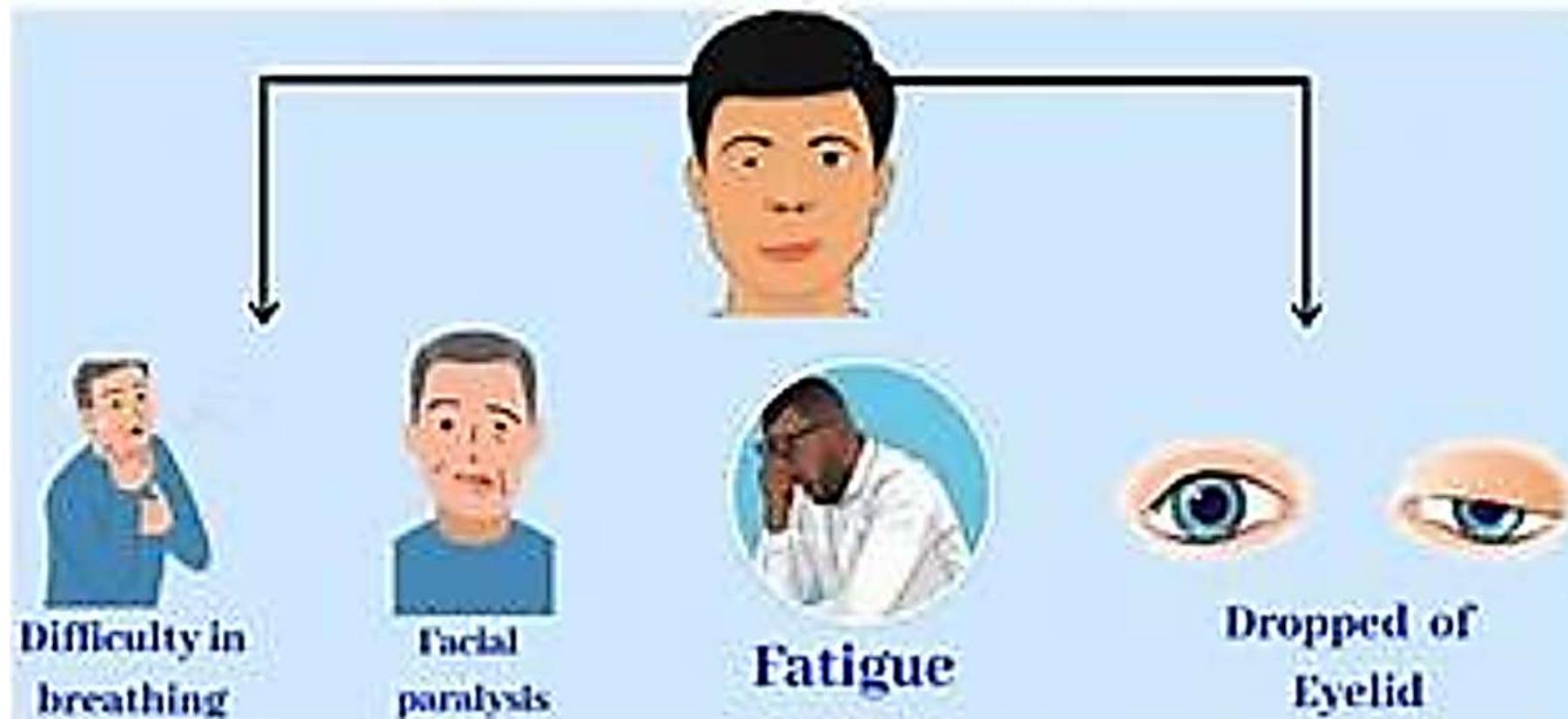
CONTROLS MOVEMENT
↓
DIPLOPIA
~ DOUBLE VISION ~



Pathogenesis of Myasthenia Gravis



Symptoms of Myasthenia Gravis



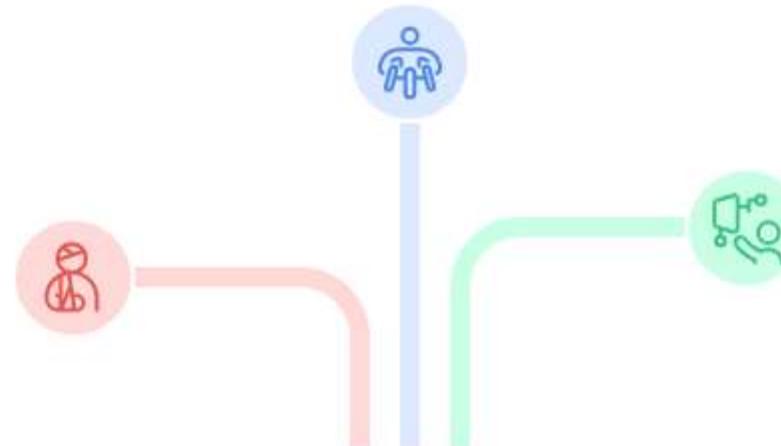
When should NMBAs be considered in Myasthenia Gravis?

Severe Myasthenic Crisis

Used to facilitate mechanical ventilation and rest respiratory muscles in refractory cases.

Emergency Intubation

Necessary for rapid sequence intubation in respiratory failure or airway compromise.



Specific Surgical Procedures

Considered for muscle relaxation, but alternatives should be explored.

Safe NMBA Administration in Myasthenia Gravis

- 1 Reduce Dosage**
Start with a small test dose and titrate carefully
- 2 Neuromuscular Monitoring**
Use TOF monitoring to assess blockade
- 3 Choose NMBA**
Select short-acting agents like rocuronium
- 4 Administer Reversal Agents**
Use neostigmine or sugammadex cautiously
- 5 Postoperative Monitoring**
Watch for respiratory distress and weakness
- 6 Expert Consultation**
Seek advice from neurologists or anesthesiologists

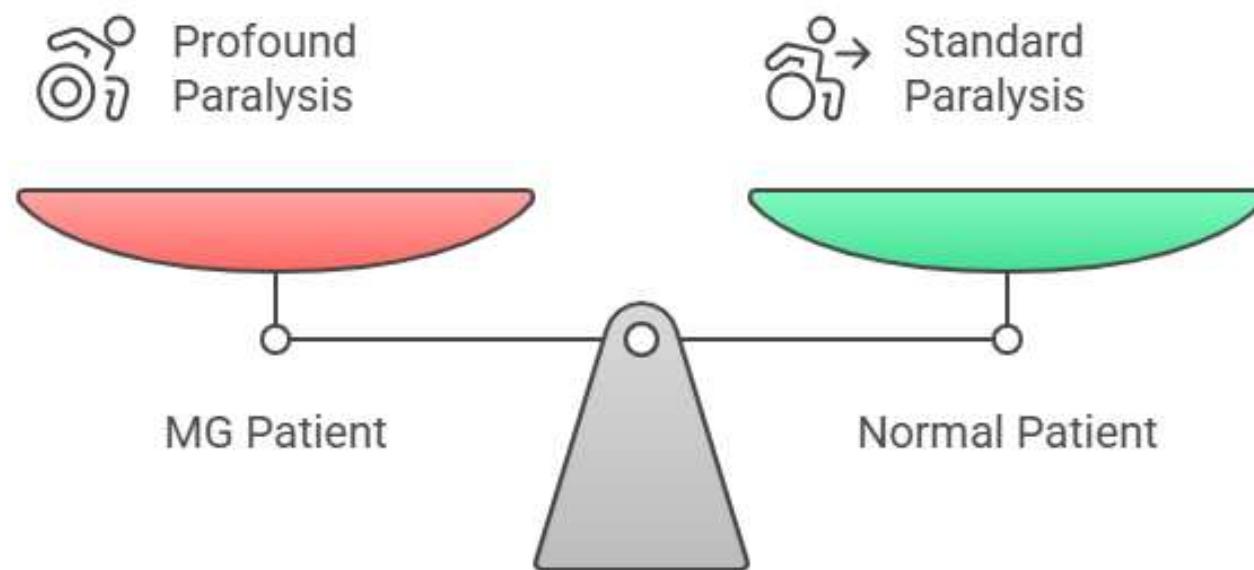
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Should succinylcholine be used in MG patients?



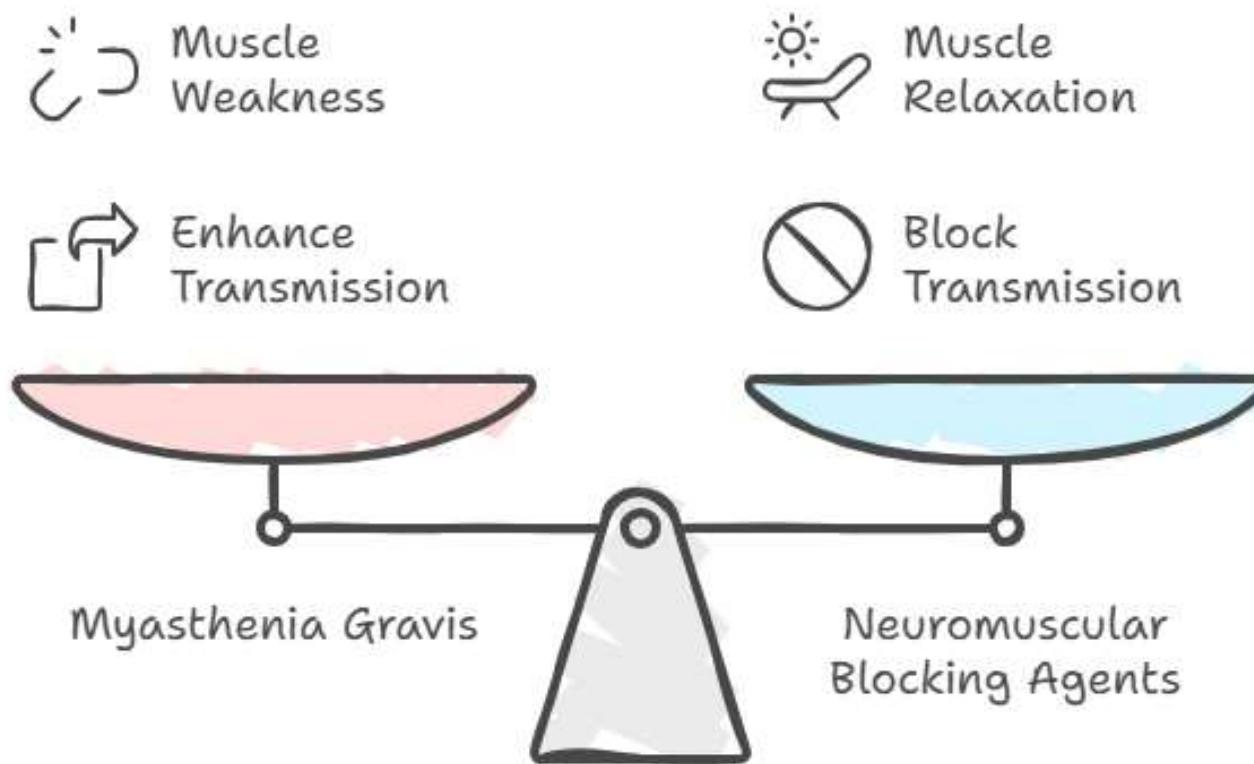
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NMBA Sensitivity in MG Patients



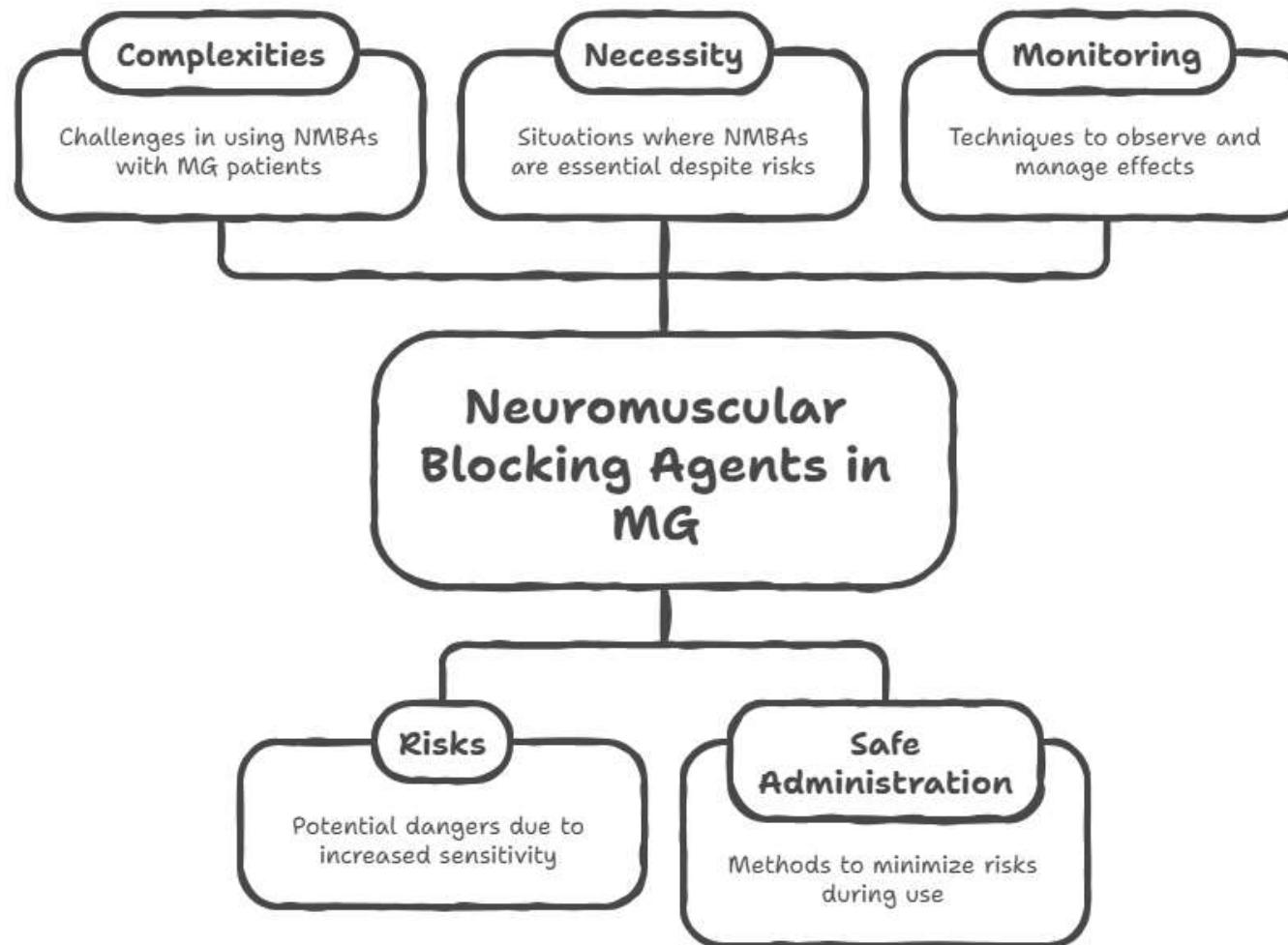
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Balancing MG Treatment Approaches



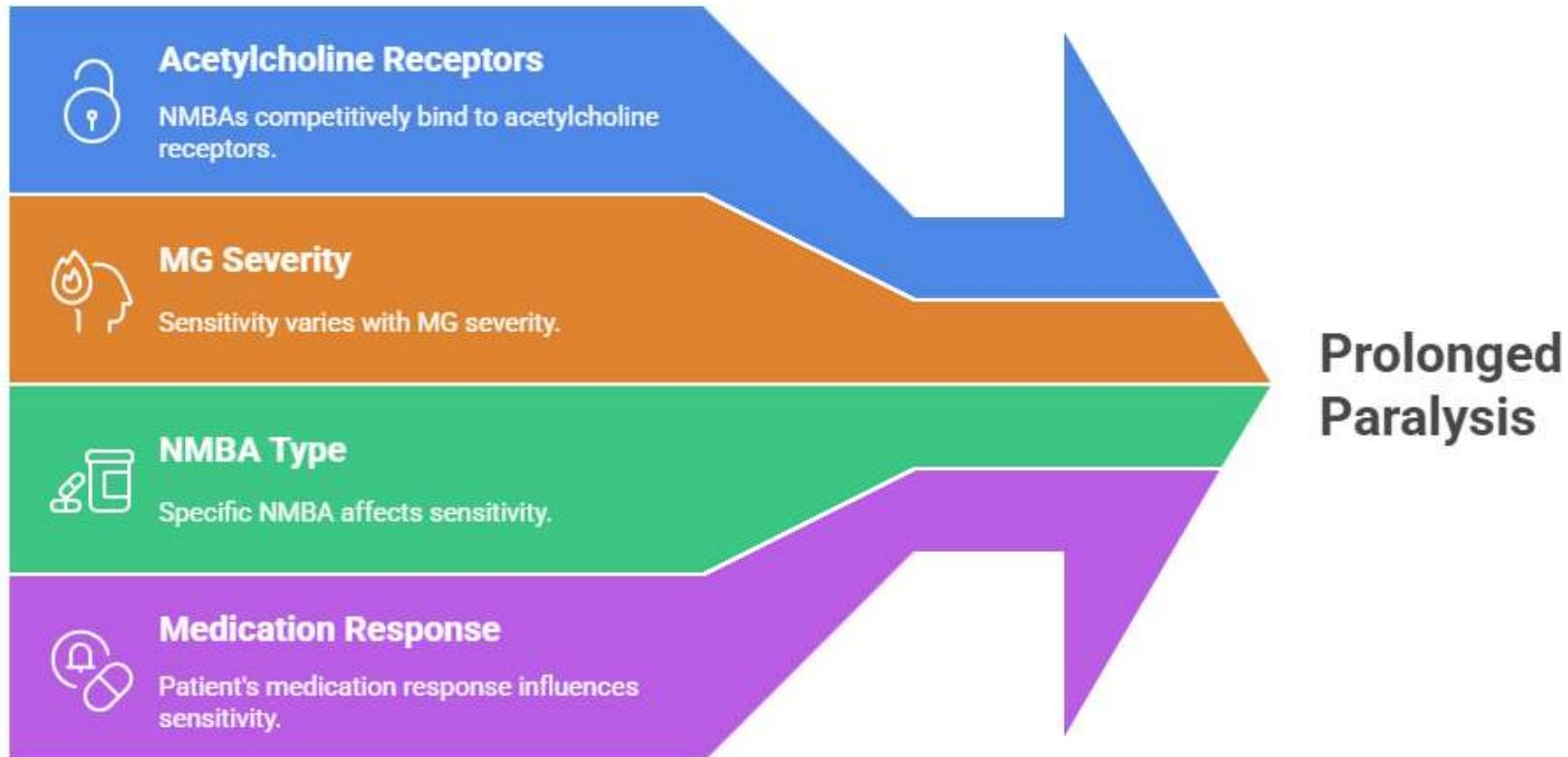
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Navigating NMBAs in Myasthenia Gravis



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Factors Influencing NMBA Sensitivity in MG



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Early Symptoms of Myasthenia Gravis



**Droopy eyelids
(ptosis)**

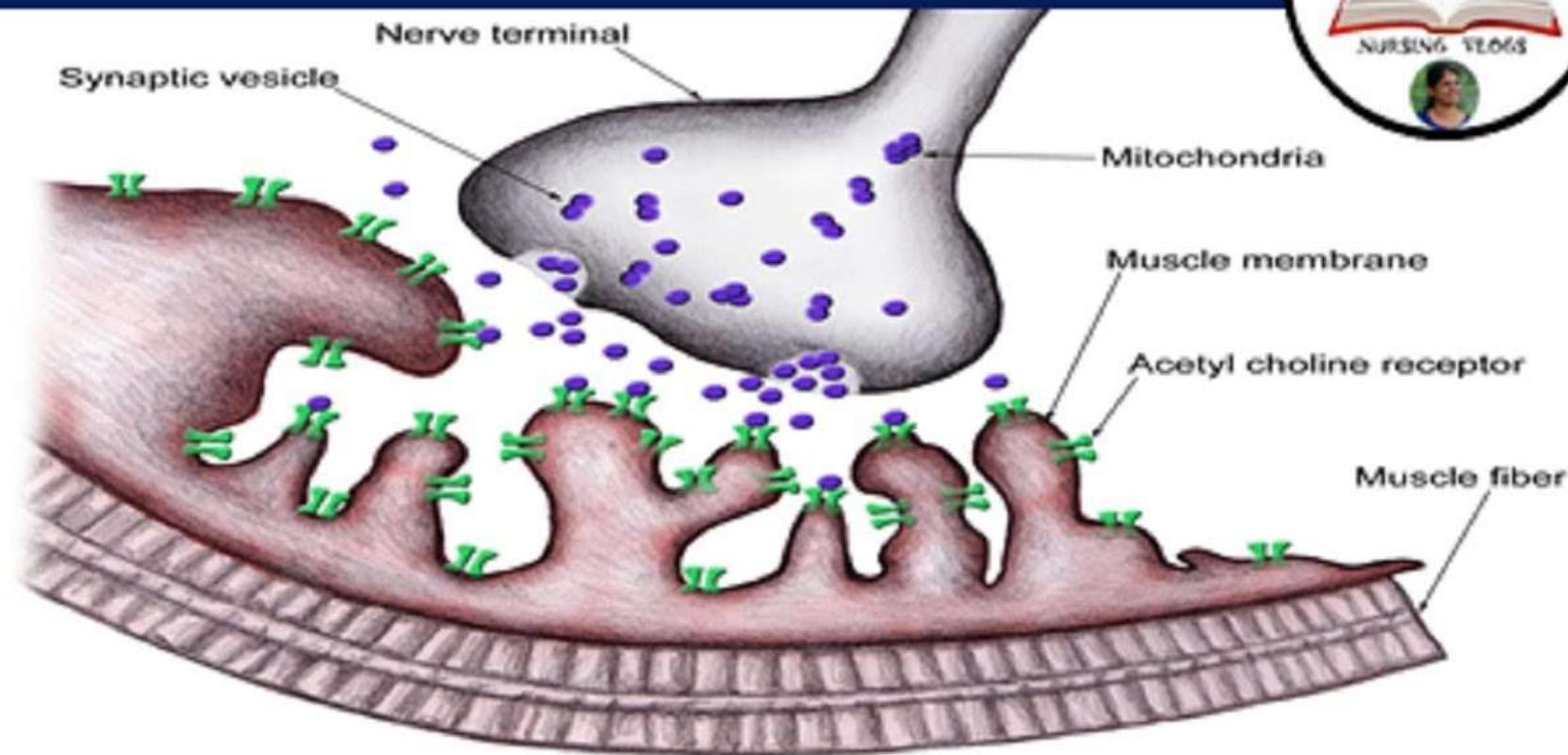


**Blurry or double vision
(diplopia)**

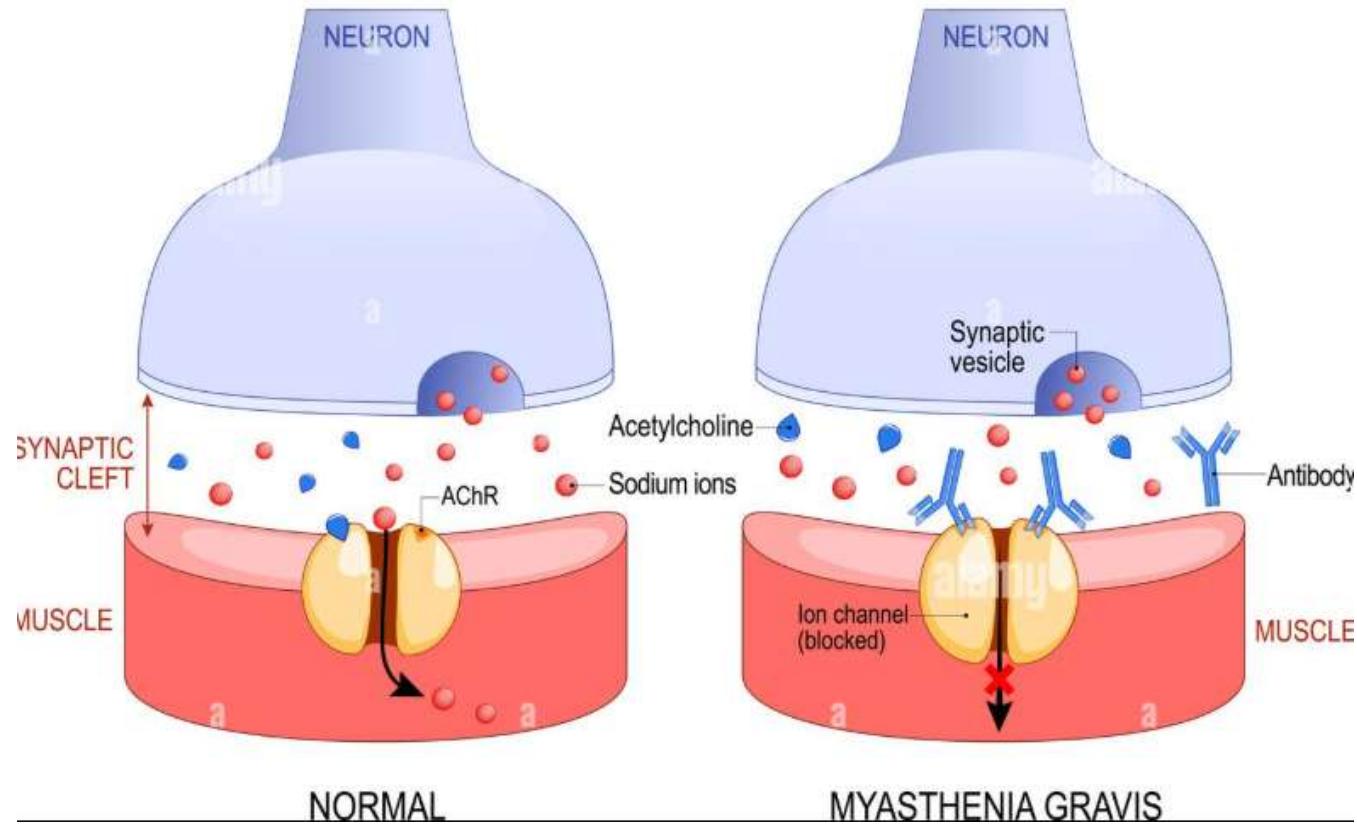
***Sometimes, these are the only symptoms**

verywell

MYASTHENIA GRAVIS



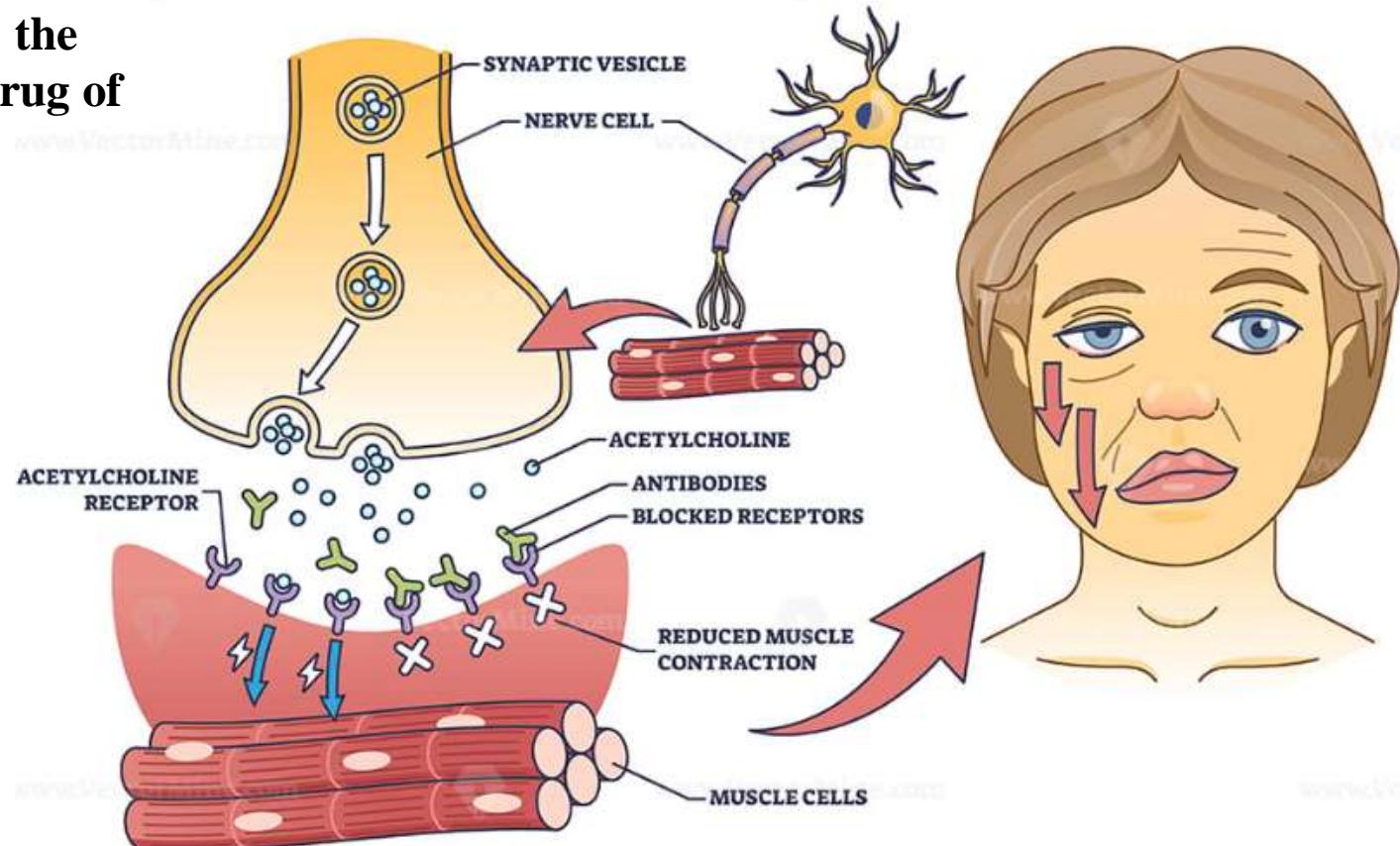
MYASTHENIA GRAVIS



CLASS ASSESSMENTS



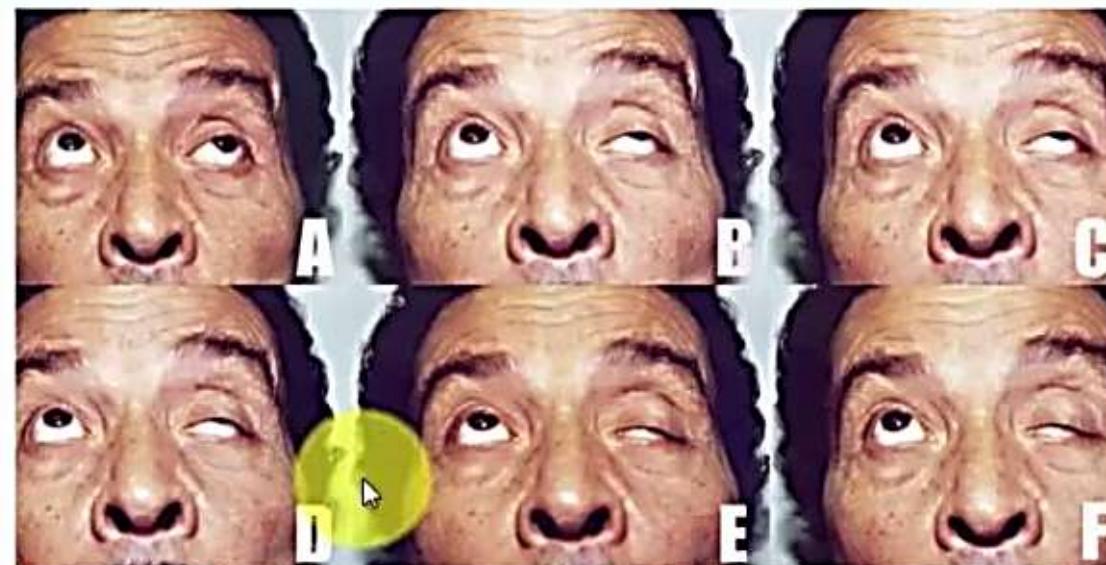
Look at the picture & identify the disease and mention one drug of choice?



SUMMARY

Myasthenia Gravis

- Ocular Signs and Symptoms
 - Levator Weakness
 - With sustained upgaze ptosis will gradually worsen



Increasing left ptosis developing upon sustained upward gaze in a patient with myasthenia gravis (A through F). Note the limited elevation of the left eye denoting superior rectus palsy (A). A initially, C after around 20 seconds, F after 1 minute.

REFERENCE

- Rang & Dale's Pharmacology, 9th Edition, Elsevier, 2019.
- Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 13th Edition, McGraw-Hill, 2018.
- Text book of Pharmacology by KD Tripathi.

