

# Myasthenia Gravis: co-morbid psychiatric disorders and use of psychotropic medication



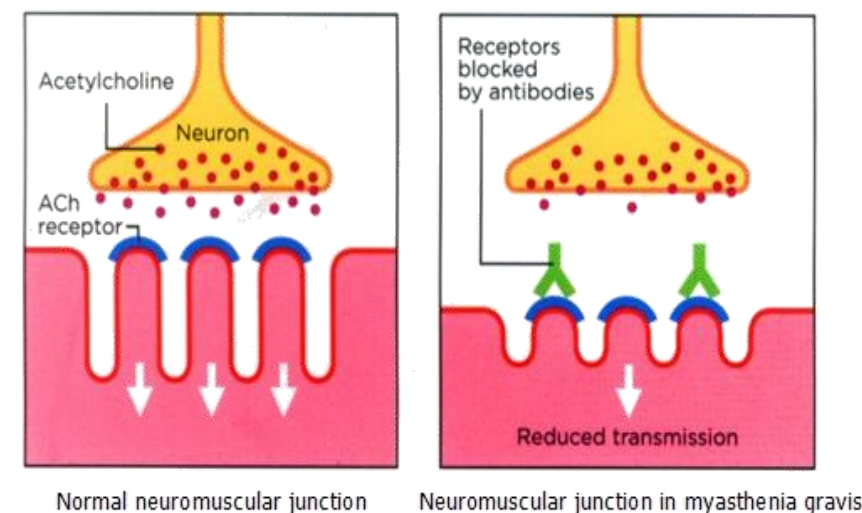
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## BACKGROUND

- Myasthenia gravis (MG) is a chronic, autoimmune disease caused by antibodies that target neuromuscular junctions;
- Prevalence of about 20 per 100.000;
- MG may be unrecognized initially because the **psychiatric symptoms** may coincide with those of the actual disease, such as fatigue, lack of energy and shortness of breath;
- **Co-morbid psychiatric symptoms** that appear during the course of the illness may be misdiagnosed as true myasthenic symptoms leading to unnecessary drug treatment<sup>1</sup>.



## RESULTS

Patients with MG showed <sup>2,3</sup>	
<b>Sleep disorders</b> <ul style="list-style-type: none"> <li>- Shorter REM sleep period</li> <li>- Increased number of awakenings</li> <li>- Reduced quality of awakening</li> <li>- Increased frequency of dream recall</li> <li>- Shallower sleep EEG</li> </ul>	<b>Memory disturbances</b> <ul style="list-style-type: none"> <li>Performed worse in delayed recall memory and verbal learning tests</li> </ul>



There are other alternatives for these disorders in MG besides a central cholinergic deficit, such a consequence of nocturnal respiratory problems, nonspecific immunological processes or as a result of increased mental fatigue.

### Co-morbid psychiatric disorders<sup>1</sup>:

- Up to **20%** of patients with MG were initially diagnosed as having a psychiatric disorder;
- There are reported incidences between **41- 59%** of psychiatric disorders in MG:
  - Depression and adjustment reactions are the most common diagnosis
  - Anxiety disorders, such as panic disorders and generalized anxiety disorder
  - Insomnia
- There also appears to be a relationship between emotional status and the initial presentation of MG, as well as flare-ups;
- Corticosteroids, one of the available therapies for MG, are associated with psychiatric manifestations.

### PSYCHOTROPIC MEDICATION<sup>1,4</sup>:



- Antidepressants:**
  - Fluoxetine, citalopram and duloxetine don't seem to deteriorate the clinical course of MG;
  - Tricyclic antidepressants (TCAs): It may be advantageous to use TCAs with better anticholinergic adverse effect profile such as desipramine or nortriptyline.
- Benzodiazepines:**
  - Long-acting benzodiazepines are associated with excessive night time sedation or respiratory depression;
  - With concomitant immunosuppressive therapy, patients benefit from the use of benzodiazepines that do not undergo phase-I metabolism (oxazepam, lorazepam, brotizolam).
- Mood stabilizers:**
  - Lithium carbonate has been reported to cause new-onset myasthenic symptoms and exacerbation of MG;
  - Carbamazepine interferes with the bioavailability of immunosuppressive therapy;
  - Valproic acid and topiramate were not found to affect MG.
- Antipsychotics (AP):**
  - Agents with anticholinergic effect such as olanzapine, quetiapine and clozapine should be carefully monitored;
  - Haloperidol, amisulpride and paliperidone were reported to be safer.

## CONCLUSIONS:

- MG itself and its treatment may cause psychiatric morbidity;
- Recognition and treatment of psychiatric symptoms may improve patients' well-being;
- There is a great need for evidence-based data on the safety and efficacy of psychotropic medications in MG.

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