DRUGS AND THE RISK OF WORSENING THE WEAKNESS IN PATIENTS WITH MYASTHENIA GRAVIS

Myasthenia Gravis Society of Canada

Provided by
Myasthenia Gravis Society of Canada
www.mgcanada.org
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Many medications have been reported to worsen weakness in patients with MG. The evidence that the drug was responsible for an exacerbation in MG is often weak. Usually, more MG patients can take these medications without ill effect than will become weak because of them. However, caution is still advised.

TO THE DOCTOR

The risk that a given medication will exacerbate MG must be balanced by the need for that particular drug, the lack of a suitable substitute and the gravity of the situation requiring the use of the drug. None of these medications are absolutely contraindicated in patients with MG. However, when possible, substitutes should be used.

If there are no available substitutes, the patient should be monitored closely for signs of worsening MG. If respiratory or bulbar (swallowing) functions are already seriously compromised, consideration should be given to monitoring in an inpatient setting when the drug is started.

MG PATIENT NAME:

_____

FAMILY DOCTOR

Name: _____

City: _____ **Prov:** _____

P.C. _____ **Phone:** __(_____)_____

Notes: _____

_____

NEUROLOGIST

Name: _____

City: _____ **Prov:** _____

P.C. _____ **Phone:** __(_____)_____

Notes: _____

_____

Specific drugs which are most consistently reported as potentially being a problem are underlined:

ANTIBIOTICS

Aminoglycosides
- Neomycin
- Gentamicin
- Streptomycin
- Kanamycin
- Tobramycin

Macrolides
- Erythromycin
- Clarithromycin
- Azithromycin, etc.

Fluroquinolones
- Norfloxacin
- Ofloxacin
- Ciprofloxacin, etc.

Others
- Amikacin
- Polymixin B
- Colistin
- Tetracyclines
- Oxytetracyclines

CARDIOVASCULAR

Beta Blockers - including topical/ ocular - Probably safe!

Quinidine

Procainamide

Calcium channel blockers

Verapamil, Nimodipine and perhaps other calcium channel blockers - also probably safe!

Clonidine

ACE inhibitors

May potentiate bone marrow suppression if on Azathioprine.

CNS ACTIVE

Diphenylhydantoin/Phenytoin

Trimethadione

Lithium

Chlorpromazine, Promazine

Trihexyphenidyl

Morphine and other narcotics, benzodiazepines & barbiturates - *Probably safe unless significant bulbar or respiratory compromise is present.*

Amantadine

ANTI-RHEUMATIC

Chloroquine

D-Peniciliamine - *Can cause MG in some individuals, usually reversible.*

Prednisone - *High doses can temporarily worsen MG within first 1-2 weeks. There is no reaction between Mestinon and Prednisone!*

ANAESTHETIC AGENTS

Non-depolarizing Agents

Pancuronium, Vecuronium. Atracurium - *Increased sensitivity to MG.*

Succinylcholine - *Decreased effect in MG, increased if on Pyridostigmine.*

Local anaesthetics should not produce any worsening.

CANCER TREATMENT Anti-PD (programmed death) inhibitors and checkpoint inhibitors (CPI). *These are relatively new and can either cause MG de novo or worsen pre-existing MG although the risk is low.*

OTHER

Allopurinol, Febuxostat; for gout - *Increases risk of Azathioprine toxicity.*

Procaine and Lidocaine (iv) - *No risk for local anesthetics.*

Magnesium - *If given at doses to raise serum Mg++ level.*

Bretylium

Lactate

Topical ophthalmic drugs - Timolol, Beaxol, Echothiophate -*Probably safe.*

Quinine - *Probably safe in beverages.*

Iodinated contrast agents

Citrite anti-coagulant

Dihenhydramine

In all cases, medications should be considered as the cause of an unexplained deterioration in a myasthenic patient.