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

Provided by
Myasthenia Gravis Society of Canada
www.mgcanada.org
Written by M.W. Nicolle, MD, FRCPV, D. Phil
(Updated June 2016)

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:** _____
Phone Number: __(_____)_____
Notes: _____
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NEUROLOGIST

Name: _____
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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

Bretylium (high doses)

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.

OTHER

Allopurinol - *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

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

Quinine - *Probably safe in beverages.*

Lactate

Iodinated contrast agents

Citrite anti-coagulant

Diphenhydramine

Emetin

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

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

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- Gentamicin
- Streptomycin
- Kanamycin
- Tobramycin

Macrolides
- Erythromycin
- Clarithromycin
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Fluroquinolones
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