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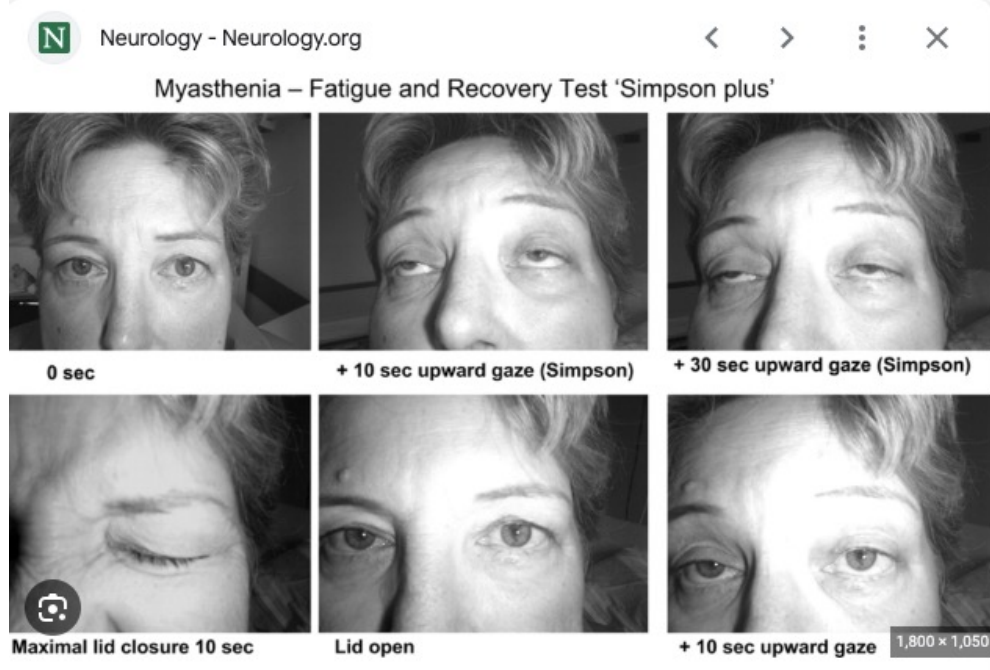
Disclosure

- None

Fatigability in the clinic

Ptosis

- Increasing “retrocollis”
- Overactivity of frontalis
- Lid twitch
- Rest test



Fatigable EOM weakness (MGC)
vs ophthalmoparesis

Dysconjugate catch-up saccades

Ophthalmologic manifestations in myasthenia gravis: presentation and prognosis

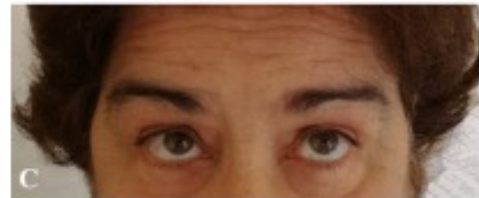
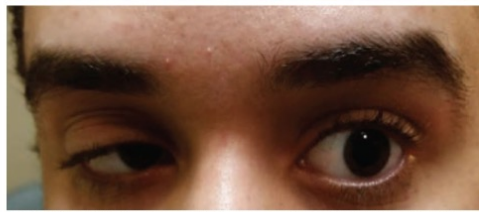
Onur Akan¹ · Leyla Baysal-Kirac²





REVIEW
of OPTOMETRY

Photo: Paul Ajamian,



resis of upward gaze on maximal attempted elevation; (B) conjugated paresis of maximal attempted leftward gaze; (C) after prednisone treatment.

Evoli A, et al. *J Neurol Neurosurg Psychiatry* 2017;0:1–3. doi:10

AChR+ / SN MG

asymmetry
EOM paresis

MuSK+ MG

symmetrical

Top: < Is Rx
Bottom > Is Rx

Dr, how long before the meds work?

New cases in MG clinic
January 2007 - April 2017
(n=263)

Observational data – OCULAR & GENERALISED

EXCLUDED FATIGABLE EOMS

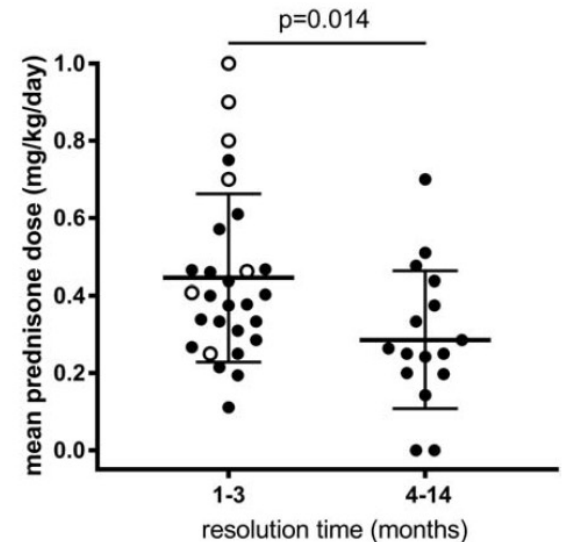
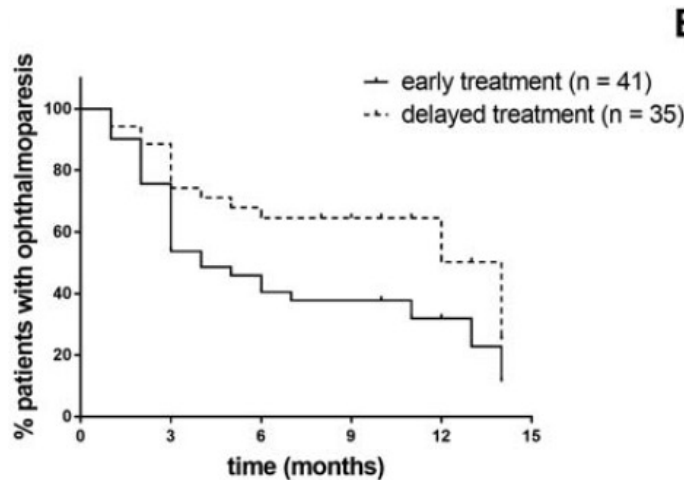


FIGURE 4. Grouped comparisons of the mean prednisone doses in the first 3 months in those who showed resolution of

Persistent
ophthalmoparesis
+/- ptosis
(n=87)

Prediction of the generalization of myasthenia gravis with purely ocular symptoms at onset: a multivariable model

Ther Adv Neurol Disord

2022, Vol. 15: 1-14

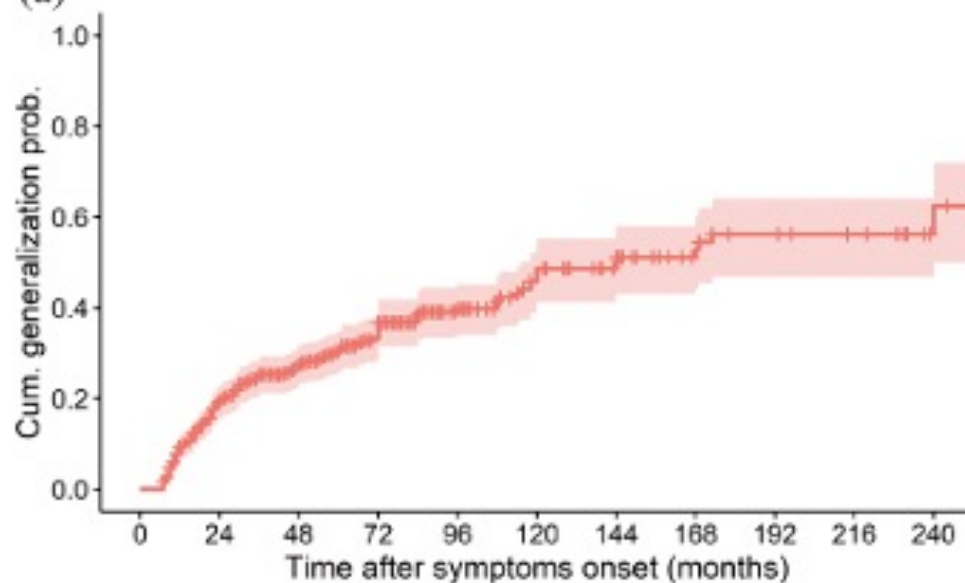
30-50% adult OMG develop GMG in 2-3 yrs? (a) 30% GMG median 18-30 mo.

N=275 Germany; N=200 China
most did not use prednisone
<6mo. of OM sx.

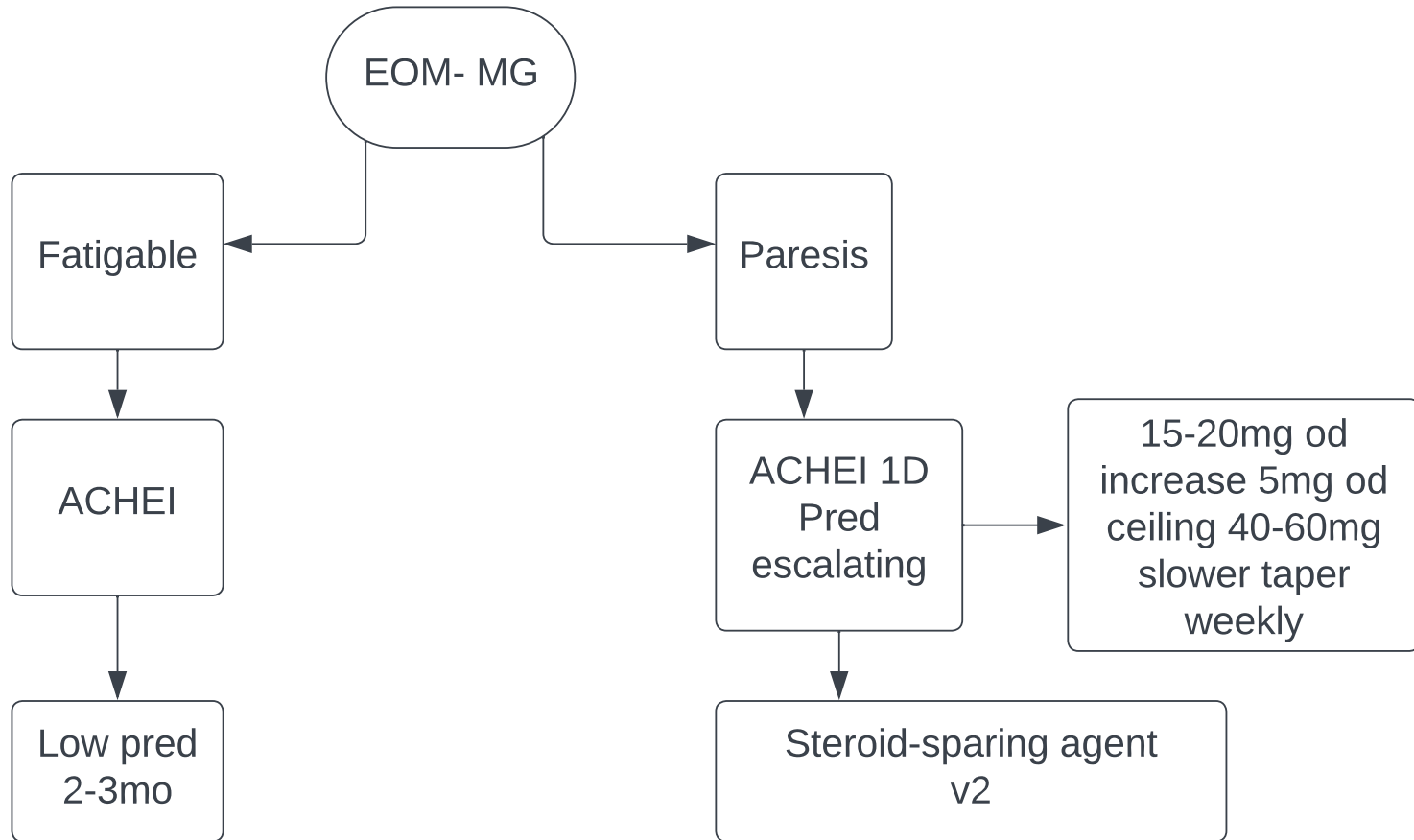
Older people risk of
GMG > 4-6 yrs

Juvenile OMG- higher risk among
European vs Asian /African

Immune treatment may change risk

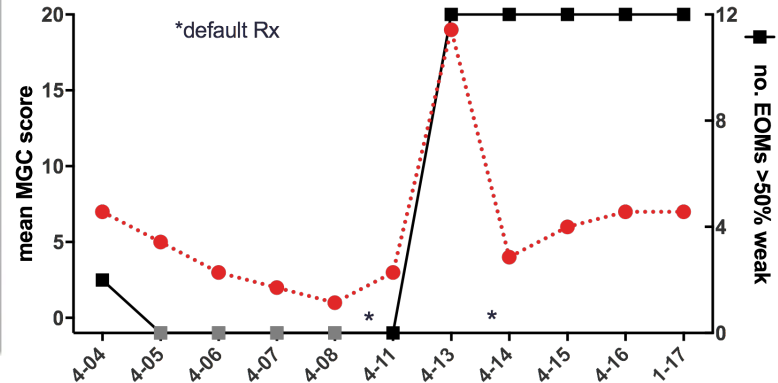
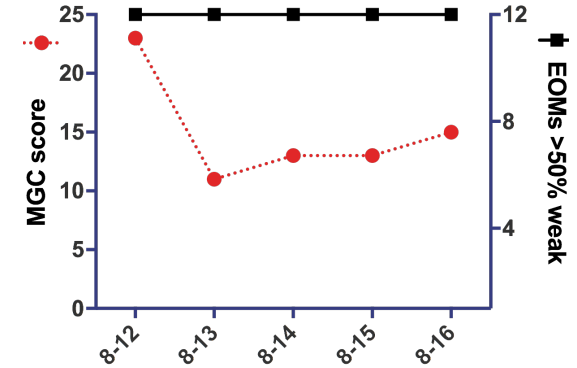
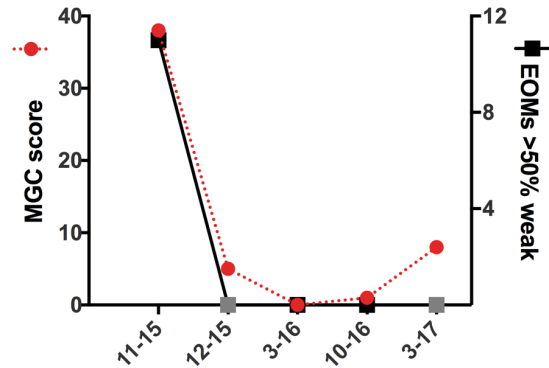


Managing Ocular Myasthenia



Subgroup of patients (generalized) MG AChR ab+* develop treatment-resistant ophthalmoplegia (TRO)

10% complete ophthalmoplegia at presentation



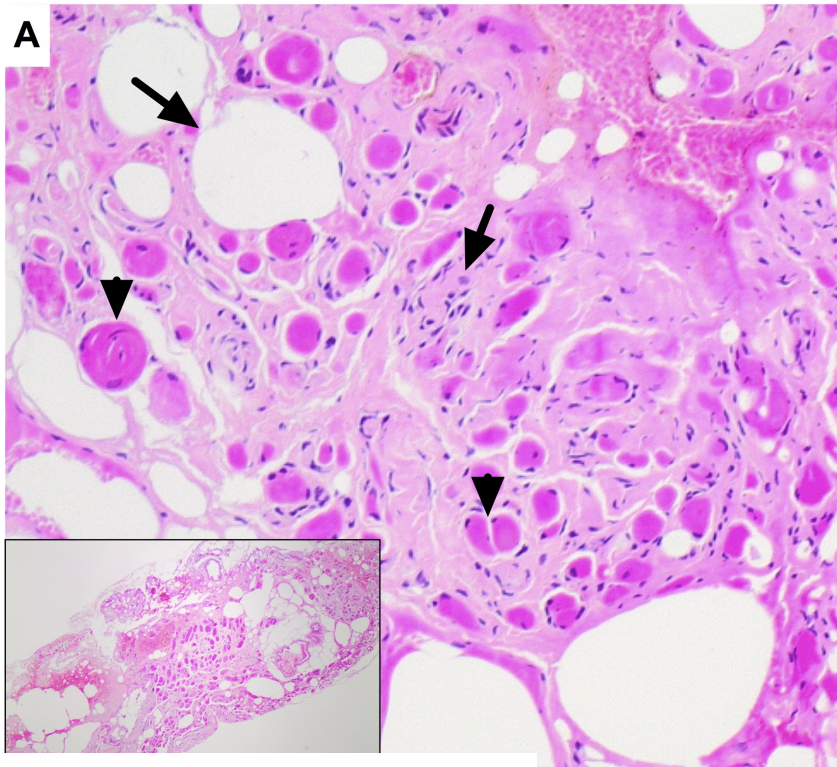
7-20% JMG = TRO

Neuromuscular Dis 2007

Trigger events?

Why do EOMs become treatment-refractory in MG

Paralyzed medial rectus from
MG 3.5 years



J Neuro-Ophthalmol, 2017

vs normal MR re-aligned
due to sensory exotropia

Histology: Fibro-fatty changes
EOMs which cannot move

Journal of neuromuscular diseases

Eye Muscle MRI

Keene, 2023

Fibrofatty changes in EOM of
chronic MG & CPEO & OPMD

vs acute MG and control

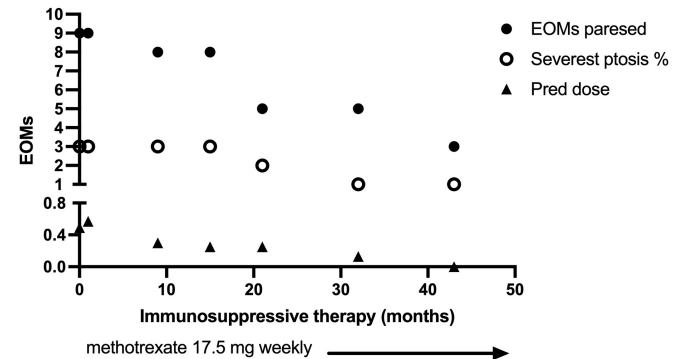
Delayed 'remodelling' is possible!



4/2017
EOMs: paresed 9
Ptosis: 2



1/2021
EOMs: paresed 2
Ptosis: 1



- IVIg and Rituximab not been useful in TRO
- MuSK-MG associated ophthalmoplegia – improved years later (after rituximab)
- Lid elevation procedures in chronic ptosis (no lagophthalmos)

/

Learning points Ocular MG

20% : good
prognosis –
mild disease
needs less

30-50%
generalize < 2-
3 years

Older people
may generalize
>4-6 years

Weak EOM
(NOT
fatigable) –
immune
therapy earlier
