Giant Cell Arteritis & PMR

GCA · Steroid first, biopsy after — sight lost is not recovered

DO NOT WAIT *for the biopsy*

RECOGNIZE GCA *a medical emergency in anyone over 50*

CRANIAL SYMPTOMS

New headache, usually temporal · **scalp tenderness** — noticed brushing hair or on a pillow · **jaw claudication**, which is the most specific symptom · a **tender, thickened or pulseless temporal artery** · tongue claudication.

VISUAL — THE EMERGENCY

Amaurosis fugax, diplopia, or sudden visual loss, most often from **anterior ischemic optic neuropathy**. **Visual loss is usually irreversible**, and without treatment the second eye follows within days. **Transient visual symptoms are the warning you must act on.**

SYSTEMIC & LARGE-VESSEL

Fever, weight loss, night sweats, and a **markedly raised ESR and CRP**. **Large-vessel GCA** may present with limb claudication, arm blood pressure asymmetry, bruits, or an **aortic aneurysm** years later, sometimes without any cranial symptoms.

TREAT FIRST, CONFIRM SECOND *the single most important sequencing rule in rheumatology*

1. **Start glucocorticoids immediately on clinical suspicion. Do not wait for the biopsy, the ultrasound, or even the ESR.** Delay costs vision permanently.
2. **No visual symptoms: prednisone 40–60 mg daily** (roughly 1 mg/kg) as a single morning dose.
3. **Visual symptoms or established visual loss: intravenous methylprednisolone pulses** for 3 days, then high-dose oral. Involve **ophthalmology the same day**.
4. **Then confirm. Temporal artery biopsy** ideally within **1–2 weeks** — it stays positive for a period after starting steroid, so treatment does not invalidate it. Take an adequate length because of **skip lesions**, and consider bilateral sampling. **Temporal artery ultrasound** showing a **non-compressible halo sign** is an accepted alternative where expertise exists.
5. **Assess the large vessels** with CT, MR or PET angiography where large-vessel involvement is suspected, and arrange **long-term aortic surveillance** given the aneurysm risk.

TAPER, AND SPARE THE STEROID *most damage in GCA now comes from the treatment*

Element	Detail
Duration	High dose for **2–4 weeks** until symptoms and inflammatory markers settle, then a **slow taper over 12–18 months or longer**. Relapse is common, particularly during tapering.
Tocilizumab	An **IL-6 receptor antagonist**, and IL-6 is central to GCA pathogenesis. In the **GiACTA** trial, sustained remission at 52 weeks was reached by **56%** on weekly tocilizumab versus **14%** on placebo with a 26-week prednisone taper, with a **lower cumulative prednisone dose and fewer flares**. **Include prednisone when treating relapse**, given the vision risk. Note that tocilizumab **suppresses CRP**, so inflammatory markers can no longer be used to monitor activity.
Steroid morbidity	Anticipate and prevent it: **bone protection** with calcium, vitamin D and a bisphosphonate, **glucose monitoring**, blood pressure, **gastroprotection**, cataract and glaucoma screening, and infection risk. **Low-dose aspirin** is used by some for the ischemic risk.

POLYMYALGIA RHEUMATICA *related, overlapping, but a different steroid dose*

THE PICTURE

Aching and prolonged morning stiffness of the shoulder and hip girdles in someone over 50, with a raised ESR/CRP and a **dramatic response to low-dose steroid**. **Prednisone 15–20 mg daily**, not 60 — a much lower dose than GCA. Failure to respond briskly should make you question the diagnosis.

THE OVERLAP

Roughly 40–50% of GCA patients have PMR symptoms, and a smaller proportion of PMR patients develop GCA. **Ask every PMR patient about headache, jaw claudication and visual symptoms at every visit**, and warn them to seek help urgently if these appear. Consider mimics — **malignancy, infection, inflammatory arthritis, myositis and hypothyroidism** — particularly if the steroid response is poor.

WHAT ELSE CAUSES THIS PICTURE *before committing someone to a year of steroid*

Mimic	How to separate it
Tension or cervicogenic headache	Normal inflammatory markers, no jaw claudication, no systemic features, and no scalp tenderness. The commonest reason a GCA referral turns out negative.
Infection or endocarditis	Fever with a very high CRP and constitutional symptoms can look identical. **Take blood cultures before starting steroid** where there is any doubt — steroid in undiagnosed endocarditis is harmful.
Malignancy	Myeloma and lymphoma present with weight loss, raised ESR and aches. **Check a paraprotein** in an atypical or steroid-unresponsive presentation.
Other vasculitis or inflammatory disease	**Takayasu arteritis** in younger patients with large-vessel involvement. Also late-onset rheumatoid arthritis, inflammatory myopathy (check **creatine kinase**), and hypothyroidism, all of which mimic PMR.
The discriminating step	**A poor or partial response to adequate steroid should stop you.** GCA and PMR respond briskly — typically within days. Failure to respond means reconsidering the diagnosis, not escalating the dose.

WHAT TO TELL THE PATIENT *they carry the risk between appointments*

SAFETY-NET EXPLICITLY

Every GCA and PMR patient should know to seek **same-day help for new visual symptoms, new or worsening headache, or jaw claudication**. Give it in writing. **Most sight loss happens in patients already diagnosed**, during tapering or after stopping, when neither they nor the on-call team recognize the significance.

THE STEROID CONVERSATION

Warn about the **duration** — typically a year or more, not weeks — and about weight gain, glucose, mood, sleep, bone and infection risk. Issue a **steroid card**, explain **never to stop abruptly**, and cover **sick-day rules**. Poor adherence during a slow taper is a major driver of relapse.

PEARLS & PITFALLS

- **Never delay steroids for a biopsy.** The biopsy remains informative for days to weeks; the retina does not.
- **Jaw claudication and transient visual loss are the highest-yield symptoms.** Ask about them directly, because patients rarely volunteer them.
- **A normal ESR does not exclude GCA.** A small proportion have normal inflammatory markers — check CRP too, and treat the clinical picture.
- **Tocilizumab suppresses CRP**, so you lose your usual monitoring marker — follow symptoms and imaging instead.
- **PMR takes 15–20 mg, GCA takes 40–60 mg.** Confusing the two either under-treats a sight-threatening vasculitis or over-treats a steroid-sensitive syndrome.
- **Start bone protection with the steroid**, not months later when the fracture has already happened.

References: GiACTA trial of tocilizumab in giant cell arteritis and its open-label extension (Lancet Rheumatology) · ACR/Vasculitis Foundation guideline for the management of giant cell arteritis and Takayasu arteritis · EULAR recommendations on polymyalgia rheumatica.

Educational aid; verify doses against local protocol and patient factors.

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