

Algorithm for decision pathways in the diagnosis and treatment of idiopathic orbital inflammation

1. History and physical examination:

- Similar episodes in the past?
- Chronicity and duration of disease
- Trauma, infection, systemic disorders (including cancer), and immunological compromise

2. Consider infection and trauma:

- CBC and cultures
- Radiologic evaluation of orbit and sinus (typically CT)
- Trial of systemic antibiotics

3. Consider identifiable local and systemic potential causes, according to clinical suspicion:

Thyroid orbitopathy :	Thyroid function test, CT scan of orbit
Sarcoidosis:	ACE, lysozyme, and chest radiograph
Wegener granulomatosis:	ANCA studies; pulmonary and renal function tests
Neoplasm:	CBC and systemic workup, MR1 of orbit and brain

4. After the identifiable causes have been considered, initiate treatment for presumed idiopathic orbital inflammation:

- For mild clinical presentation: observation only or NSAIDs
- For moderate to severe clinical presentation:
Systemic prednisone 1.0 to 1.5 mg/kg per day
for 1 to 2 weeks with taper over 5 to 8 weeks

Close monitoring of clinical progression and potential adverse reaction to steroids

5. If there are persistent or recurrent episodes that are refractory to systemic steroid therapy, strongly consider biopsy for definitive diagnosis

6. If biopsy findings are consistent with idiopathic orbital inflammation, consider the following for cases that are refractory to systemic steroids:

- if initially favourable response to the steroid therapy, restart systemic steroid with slow taper
- If steroid intolerant, non-responsive, or dependent, consider radiation therapy viz. low dose external beam irradiation, typically 1500 to 2000 cGy fractionated over 10 days

7. If refractory to both medical and radiation therapy, consider:

- Repeat work up for other causes
- Chemotherapy
- Surgical debulking if the lesion is easily accessible or if there is a severely progressive and disabling clinical course

ACE indicates angiotensin converting enzyme; ANCA, antineutrophil cytoplasmic antibody; CBC, complete blood count; CT, computed tomography; MR1, magnetic resonance imaging; and NSAIDs, nonsteroidal anti inflammatory drugs.