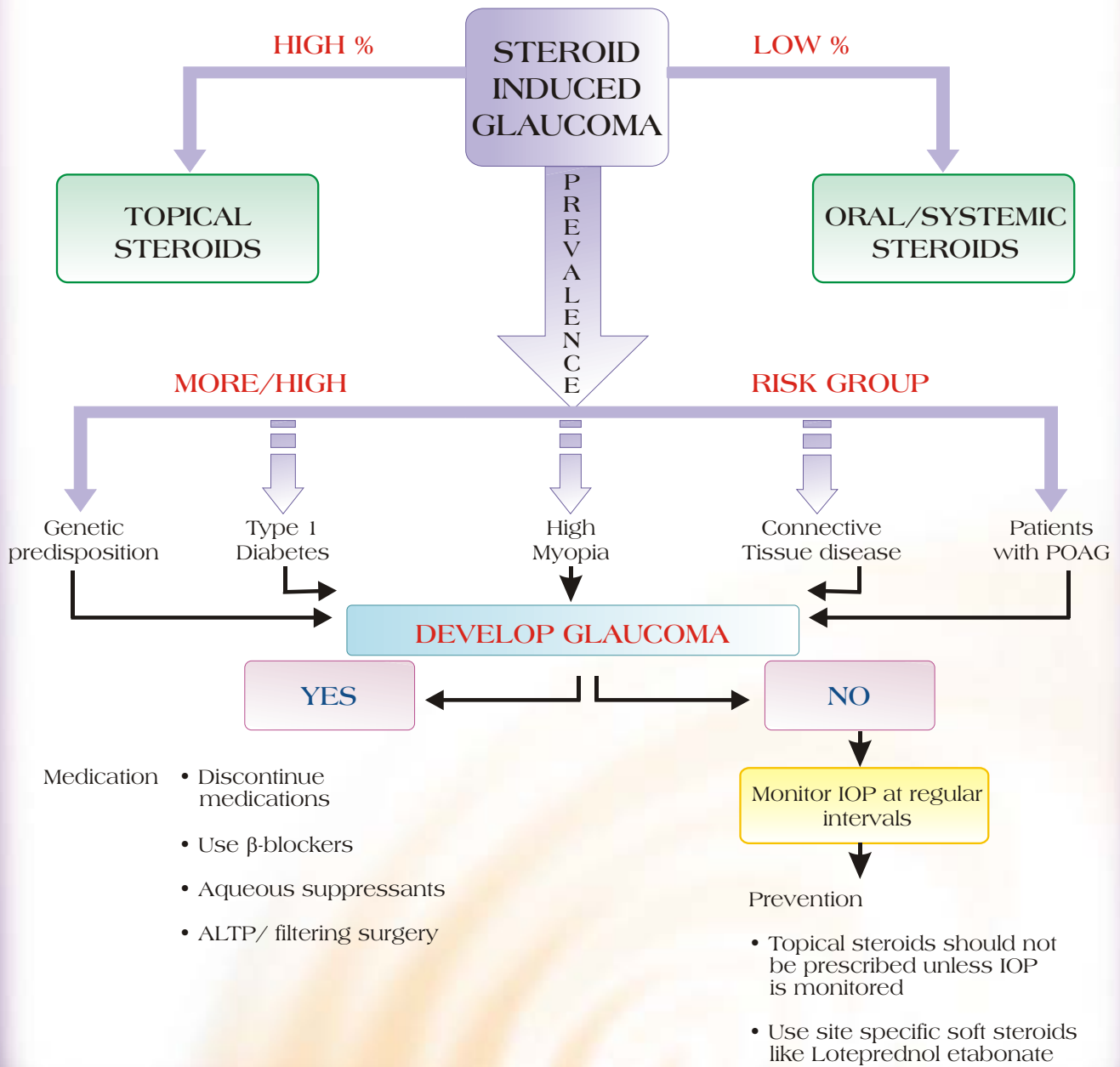


Steroid Induced Glaucoma



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Steroid induced glaucoma is a secondary open angle glaucoma that is due to topical or systemic corticosteroid use. It is seen mainly with topical, high dose inhaled or oral steroids. Approximately 30% of the patients on topical therapy may be affected.

Whether a person will react to steroids with increase in IOP is genetically determined. Those who respond with increase in IOP have defective set of particular genes, are said to be responders. Those who do not respond are non-responders.

25% of the general population will develop steroid-induced elevations in IOP after 4 weeks of qid topical steroid drugs.

5% of the population is "super-responders" - these patients develop pressure—elevations greater than 10 to 15 mm Hg with topical steroid use and may develop an IOP rise within 2 weeks.

Patients with severe uveitis on treatment with topical corticosteroid treatment are at a dual risk of Glaucoma i.e. due to uveitis and steroids.

There is an increased prevalence of steroid responders among chronic glaucoma patients.

- Steroids are thought to change the Trabecular meshwork (TM) ability to process aqueous humor.
- Glycosaminoglycan accumulation is thought to be the underlying difficulty.
- TM endothelium decreases phagocytotic ability.

Diagnosis:

Diagnosis of steroid-induced glaucoma requires a high index of suspicion and the questioning of patients specifically about their use of steroid eyedrops, ointments, skin preparations, and pills.

Management and Treatment

- Discontinuing administration of steroids.
- Topical steroids should not be prescribed unless patient can be monitored by an ophthalmologist for IOP changes.
- After prolonged abuse, IOP may not lower with medication cessation.
- β -blockers and other aqueous suppressants.
- Steroid-induced glaucoma responds poorly to argon laser trabeculoplasty and is resistant to standard medical management, then it requires filtration surgery.
- Approximately 15% of patients who are steroid super responders developing glaucoma require filtering surgery.
- Ways to avoid the problem: Use site-specific "soft" steroids like Loteprednol etabonate.
- The ophthalmologist has a pivotal role in the prevention of needless blindness by practising wise administration of steroids.

References:

1. <http://www.opt.indiana.edu>
2. <http://eyelearn.med.utoronto.ca>
3. <http://www.nova.edu>
4. [Http://www.jceh.co.uk](http://www.jceh.co.uk)