Perioperative Management of Acute Bilateral Eye Pain and Visual Impairment Following Cervical Medial Branch Nerve Radiofrequency Ablation in an Ambulatory Surgery Center: Case Report

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Introduction

- Incidence of ophthalmologic injury after anesthesia for nonocular surgery is 0.056% to 0.64% with corneal abrasion being the most frequent cause
- Other ophthalmologic conditions may present similarly to corneal abrasion but require different management[1]
- Perioperative eye injury risk factors include prolonged surgical duration, general anesthesia, lateral or prone positioning, head and neck surgery, advanced age, and pre-existing ocular conditions[1,2]
- Iritis, an inflammatory condition of the iris and anterior chamber, presents as eye pain, photophobia, tearing, conjunctival injection, and decreased visual acuity[3]
- Iritis may become evident or exacerbated in the postoperative period and can closely mimic more common anesthesia-related ocular injuries

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An **institution specific eye injury protocol** in the postoperative period in this case **aided early recognition**, multidisciplinary communication, and appropriate escalation of care.

Medical History

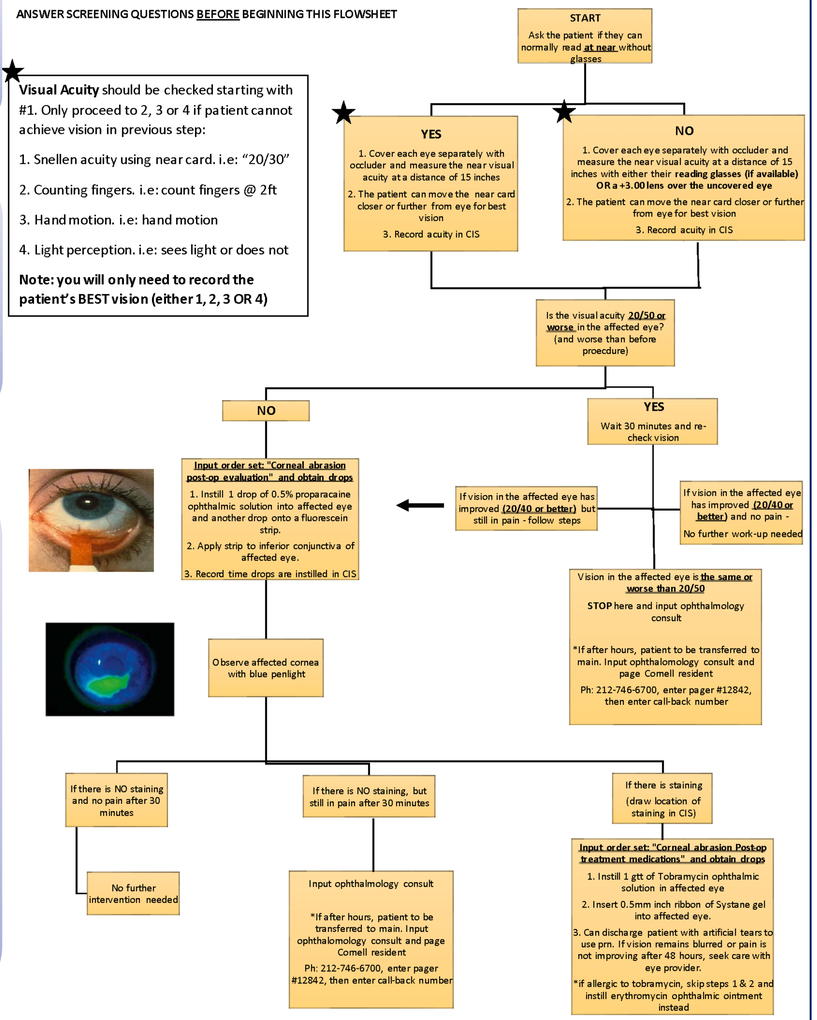
- 72-year-old patient with chronic pain, diffuse large B-cell lymphoma in remission, factor V Leiden mutation, cataracts, and multiple medication allergies

Procedure Details

- Left cervical medial branch radiofrequency ablation under fluoroscopic guidance
- MAC with propofol sedation
- Prone positioning with appropriate padding
- Procedure duration approximately 48 minutes
- Uneventful intraoperative course

Postop Course

- In PACU, inability to voluntarily open both eyes, tearing, ocular burning, and photophobia, worse in the left eye
- Exam with bilateral conjunctival injection and tearing with mild periorbital edema
- Visual acuity initially unobtainable in the left eye and measured 20/50 in the right eye
- Over next hour, left eye remained painful with persistent tearing and blurred vision (visual acuity 20/80)
- Sent to ED for further evaluation with exam noting no fluorescein uptake or foreign body, with normal intraocular pressures
- Findings consistent with acute iritis rather than corneal abrasion
- Symptoms improved with treatment



Learning Points

- Acute postoperative eye pain and visual changes following ambulatory procedures warrant prompt evaluation and a broad differential diagnosis beyond corneal abrasion
- Iritis can mimic corneal abrasion postoperatively, presenting with photophobia, tearing, and difficulty opening the eye
- Clear discharge planning and timely referral can prevent delays in diagnosis and treatment of potentially vision-threatening conditions, including acute iritis, acute angle-closure glaucoma, ischemic optic neuropathy, retinal vascular occlusion, and orbital compartment syndrome

References

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