

## INTRODUCTION

Most ophthalmologic procedures are performed in ambulatory settings with regional ocular blocks or monitored anesthesia care (MAC). Rare anesthesia-related complications can still cause serious injury and malpractice claims.

## AIM

To characterize patterns of alleged anesthesia-related complications in ophthalmology malpractice claims and identify perioperative risk domains relevant to ambulatory anesthesia practice.

## METHODS

- Retrospective review of 64 ophthalmology-related malpractice cases involving alleged anesthesia-associated injury.
- Cases identified from published judicial opinions and publicly reported settlements in the Westlaw database.
- Included cases in which an anesthesia provider or anesthesia management was central to the claim.
- **Cases categorized by:**
  - Anesthesia modality
  - Injury severity
  - Primary risk domain
  - Contributing system factors
- Descriptive analysis used to identify recurring patterns.
- 10 representative cases selected for presentation in **Table 1**.

## RESULTS

- **60%** of representative cases involved **extreme injury** such as death or permanent blindness.
- **50%** involved **regional ocular anesthesia** (retrobulbar or peribulbar block), often associated with globe perforation, retinal vascular occlusion, or optic nerve injury.
- **40%** included alleged **informed consent deficiencies**, especially in block-related injuries.
- **20%** involved **sedation or general anesthesia-related complications**, including escalation from local anesthesia and cardiorespiratory instability.
- **10%** involved **equipment or monitoring failures**, including failure to detect anesthesia circuit disconnection.
- Recurring themes included:
  1. Technical deficiencies in ocular block administration
  2. Inadequate preoperative risk stratification
  3. Communication lapses between anesthesia and surgical teams
  4. Incomplete documentation of anesthesia-specific risks

## SUMMARY

- Anesthesia-related malpractice claims in eye surgery are relatively uncommon, given the high safety profile of these procedures, but may result in severe injuries leading to significant litigation, including globe perforation, death, and blindness.
- Ophthalmologic anesthesia malpractice claims reveal recognizable and potentially modifiable risk domains.
- The most common recurring issues were ocular block technique, informed consent, preoperative risk assessment, team communication, and documentation.
- Appropriate provider training and experience in block performance, patient selection and preparation, and management of sedation can help reduce patient injury
- These findings suggest that targeted ambulatory safety interventions may reduce preventable injury and medicolegal exposure.

Table 1

Procedure	Anesthesia Type	Injury	Contributing Factors	Additional	Mechanism of Injury
Cataract surgery	General	Expulsive loss of eye	Equipment failure	Inadequate anesthetic depth	Circuit disconnection → coughing → expulsive hemorrhage
Retinal detachment repair	Retrobulbar block	Optic nerve injury / CRVO	Regional anesthesia technique	Informed consent	Needle trauma / vascular occlusion
Vitreoretinal surgery	Planned local → GA	Stroke, death	Anesthesia plan mismatch	Risk stratification	Escalation to GA in high-risk patient
Cataract surgery	MAC/regional	Permanent blindness	Improper anesthesia administration	Technique selection	Alleged anesthetic mismanagement
Cataract surgery	Local vs GA dispute	Poor surgical outcome	Anesthesia technique selection	Standard-of-care definition	Litigation over technique choice
Ocular surgery	Not specified	Bilateral blindness (PION)	Perfusion management	Hemodynamic control	Hypotension → optic nerve ischemia
Laser/ophthalmic procedure	Retrobulbar block	Globe perforation	Regional block technique	Anatomical risk	Needle penetration of globe
Cataract surgery	Peribulbar block	Permanent blindness (CRAO)	Injection technique	Training/credentialing	Globe perforation → retinal artery occlusion
Eye surgery	Retrobulbar block	Permanent blindness	Informed consent failure	Block risk disclosure	Failure to disclose alternatives/risks
Cataract surgery	Injection anesthesia	Retinal detachment	Injection error	Technique	Choroidal hemorrhage post-injection

## CONCLUSIONS

- Ophthalmologic anesthesia malpractice claims highlight recurring and potentially modifiable risk domains in ambulatory practice.
- Priorities for improvement include regional block safety, careful preoperative risk assessment, and strong communication between anesthesia and surgical teams.
- Better monitoring, clearer informed consent, and thorough documentation may help reduce preventable harm and medicolegal exposure.

