Seven Hundred Medicolegal Cases in Ophthalmology

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Abstract: Seven hundred medicolegal claims in ophthalmology were reviewed by one ophthalmologist who served as an expert for four decades. The ophthalmologist was personally involved in 620 claims. The 700 cases have been categorized and analyzed. The reasons for the claims and some lessons derived from them are presented. Familiarity with the claims encountered by others may enable ophthalmologists to avoid similar claims.
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Lessons learned from an analysis of 700 medicolegal claims in ophthalmology are presented. This is the largest series in which each case was reviewed by one ophthalmologist.

The claims were placed in descending order of frequency. Each category contains my impression of the significant factors in this type of claim, and suggestions to diminish the incidence of future claims.

CATEGORY I: CATARACT EXTRACTIONS (154 cases, 22% of the total)

Within the cataract group, intraocular lens (IOL) implants were the primary cause of the claim in 49 of the 154 claims.

When IOLs were first used, most of the claims were the result of poor quality control by the manufacturers. Some lenses were rough or sharp, whereas others were the wrong weight, or were poorly designed. Despite these problems, the more aggressive surgeons fit lenses in which implants were said to be contraindicated by the standards of that period. Those who held to that standard were wrong, in retrospect, but many thought at the time that the care was substandard and the patient might have a claim if the result were poor.

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Currently, the insertion of an IOL after vitreous loss and vitrectomy is not considered substandard, although it was in former years. The use of IOLs in diabetic or glaucoma patients falls into the same category. The standards of the day were incorrect in light of contemporary knowledge.

It became apparent that one of the hazards accompanying IOL use was that the availability of these implants contributed to the tendency to remove cataracts while the visual acuity was still good. Patients whose visual acuity is 20/200 or less before the operation are more likely to get a definite improvement than those whose visual acuity is 20/40 or better. If their visual acuity after the operation is mediocre, patients with good preoperative acuity are more likely to sue than those with poor preoperative acuity.[1,2]

The ten claims based on decentration of the implant and need for IOL exchange with such associated complications as vitreous loss, corneal decompensation, retinal detachment, and iridocyclitis were not meritorious for the plaintiff.

In several cases, the phacoemulsifier did not work properly. In three cases, the O-ring that separates the unsterile cooling fluid from the sterile irrigation fluid had been left out. The fault lies with the manufacturer or the person who removed the rings. In all cases in which an instrument is faulty or a solution causes a complication, the instrument or solution should be preserved without further alteration until inspected and an accurate description documented. This may place the onus on the manufacturer instead of the ophthalmologist.

Three suits were based on gross miscalculations of the lens power (5, 7, and 5 diopters).

Those associated with vascular and anesthetic complications and intraocular infection are discussed under those headings.

In one instance, a claim was made after the surgeon elected not to implant an IOL because of vitreous bulge. It may be desirable to tell the patient in advance that the implantation might be aborted.

In summary, although cataract extractions constituted the largest group in this series, the claims were usually associated with an unfortunate result, not substandard practice.

Vitreous loss with its associated complications of retinal detachment, macular edema, keratopathy, and iritis can occur in the hands of the best surgeons. Most complications related to IOL implants fall into this category. The ophthalmologist is usually culpable if an intraocular infection is not handled in a timely manner or if treatment is grossly inadequate.

Other problems associated with intraocular infections, anesthesia, and preoperative antibiotics are discussed in their respective sections.

CATEGORY II: RETINAL DETACHMENTS (77 cases, 11% of the total)

Retinal detachment was the second most common category in this series. These did not include detachment secondary to other problems.

Failure to diagnose the detachment was a common cause of the claim. Sometimes these were associated with an inadequate examination because the pupil was not dilated, an indirect ophthalmoscope was not used, or the contralateral eye which also had a detachment was not carefully examined although the ipsilateral retina was detached.

If a small detachment is missed despite a careful examination with a dilated pupil, this is not substandard care, but failure to suspect or look for a detachment often is.

In two cases, the field defect was thought to be due to a central nervous system disorder such as a stroke.

Several claims were based on failure to see the patient in a timely manner. For example, a patient called for an appointment and told the receptionist that some symptoms associated with detachment such as light flashes, a number of vitreous opacities, or a dark shadow were observed. The receptionist suggested an appointment 6 weeks later. The patient was examined after this delay and there was a poor visual result after treatment. Receptionists must be taught to recognize when a patient should be seen in a timely manner or, if in doubt, to ask the ophthalmologist.[3] The ophthalmologist is responsible in such cases if there had been a patient/doctor relationship in the past. If a receptionist gives advice and it seems reasonable that a patient has relied on it, a doctor/patient relationship has probably been established, even though the advice was by telephone.

There is a duty to any patient who reasonably relies on advice over the telephone. If the patient cannot be given an appointment and the situation could be serious, the patient should be told that, "You must see a doctor now or you could lose your eye." If it seems like a situation in which liability might exist, the telephone call should be documented.

A retinal detachment that followed the use of miotics was the reason for claims in six cases. In one patient, the beginning of miotic therapy was followed by a detachment in a few days, and by a detachment in the contralateral eye in 1 week.

Some patients filed a claim after the detachment was cured, but a muscle imbalance causing diplopia, fatigue, and/or loss of stereopsis was present.

CATEGORY III: DRUG THERAPY (71 cases, 10% of the total)

The largest number were associated with corticosteroid therapy (39 [55%] of the 71 cases) and topical steroids accounted for the great majority (34 of the 39 steroid cases).

It is common knowledge that prolonged steroid therapy may cause glaucoma and cataracts. A number of patients had advanced glaucoma with field loss as well as cataracts. Why was the use of topical steroids permitted for long periods? In some cases, the receptionist approved telephone requests for refills in others the pharmacist said he had telephone permission which may or may not have been true. In still other cases, the patient lied to the pharmacist regarding permission for refills, and in a few cases the physician permitted the prolonged therapy.

As stated in the Retinal Detachment section, the receptionist must be trained. This includes teaching that refills must not be approved by telephone except in unusual circumstances for glaucoma therapy. As a defense against claims that refills were permitted when not indicated, the ophthalmologist might have printed on a prescription pad, "The above directions regarding refills may not be altered by telephone." A carbon copy kept in the patient's file provides a solid defense.

The complications associated with systemic corticosteroid therapy could be justified if there were a need for systemic therapy. In two cases, patients died of severe ketosis and its complications as the probable result of systemic therapy. The mild iridocyclitis in these patients could have been controlled with topical therapy. The precaution that systemic therapy should not be used if local or regional therapy would provide the desired result applies to other drugs as well. Carbonic anhydrase inhibitors have been used in cases in which topical therapy would have provided control of the glaucoma.

The association of aplastic anemia with carbonic anhydrase inhibitors presents a dilemma for ophthalmologists. Should blood counts be done routinely before and during use of drugs? If so, how frequently and for how long? Are the bone marrow changes too advanced by the time the blood count is altered to make the latter a safe guide? These questions have not been answered and are the subject of an editorial by Zimran and Beutler.[4] It might be prudent to obtain a baseline blood count and a few counts after therapy has begun, but the issue is not sufficiently clear that failure to do so is considered substan-

dard. Other type of anemias that respond to therapy may be present, and early diagnosis of these should be made.[5]

Another source of claims is complications of cataract surgery after using intraocular drugs or irrigating solutions. Corneal edema and opacification are the most common. The claim is usually made that the drug caused the problem because of poor quality control by the manufacturer. Should problems occur, the suspected drug or solution should be retained so it can be tested.

Perforation of the globe during regional injection of drugs will be discussed under the subject of anesthetic complications.

CATEGORY IV: GLAUCOMA (55 cases, 7.8% of the total)

The cases in which glaucoma was a secondary problem are not included.

The largest group of claims in this category (24 [44%] of the 55) were caused by failure to diagnose the condition until severe optic nerve damage had occurred. At times, the physician failed to measure the tension for a long period during which the patient came in for changes in spectacles or other minor matters. Occasional tactile tensions were relied on but careful inspection of the optic nerve and visual field studies were not done. Such cases are difficult to defend.

In seven cases, symptoms associated with contact lens wear misled the unsuspecting physician or optometrist to treat occasional blurring or discomfort by changing contact lenses or solutions although the cause was actually undiagnosed glaucoma.

In three cases, claims were filed because of infection after filtering surgery. This presented the same problems as other intraocular infections and is discussed under that heading (Category IX).

CATEGORY V: TRAUMA INCLUDING FOREIGN BODIES (48 cases, 6.8% of the total)

The usual reason for a suit was failure to diagnose an intraocular foreign body in 27 (56%) of the 48 cases. A few were obvious situations involving both a history of trauma and a penetrating wound. It is difficult to understand why a foreign body was not suspected. More frequently, a foreign body was missed because the surgeon depended on only one modality for diagnosis. Ultrasound, computed tomography, and especially x-rays will occasionally miss a foreign body or give an erroneous localization if used alone.

There were eight cases of siderosis, only one of which was defensible because the process was so advanced by the time the diagnosis was made that the outcome was loss of vision.[6]

Intraocular infection was the cause of a poor result in several patients. The problems involved are discussed in Category IX. Delay in therapy was often the basis for a claim in this and other situations involving trauma.

Blunt trauma producing dense hemorrhage in the media or a depressed fracture with severe swelling delayed the diagnosis of a retinal detachment. Sometimes the hemorrhage and detachment could not be differentiated, sometimes ultrasound was not used, and occasionally the presence of a late posttraumatic detachment was not considered.

Occasionally, claims arose from unusual circumstances, such as two eyes from which a corneal foreign body was removed, but an intraocular foreign body also was present. It is not feasible to take an x-ray in every case of a corneal foreign body, but if the history is one of metal hitting metal, this should be considered. In two cases, tiny foreign bodies were found in the posterior globe by x-ray and were removed. In both instances, another x-ray taken by a different surgeon months later showed a tiny foreign body in the same spot as noted on the first x-ray. The foreign body was removed. In these situations, it is possible that the first removal was of scale from an instrument.

One of the medicolegal risk factors in cases of trauma is that the eye was good before the injury and subsequent therapy. The patient should be told that the prognosis is poor, because it is. Frequently, the patient thinks that removal of a foreign body or repair of a wound will result in a normal or good eye again.

CATEGORY VI: MISCELLANEOUS (46 cases, 6.6% of the total)

CATEGORY VII: MEDICAL RETINA (43 cases, 6% of the total)

One half of these cases involved patients with diabetic retinopathy. The reasons for claims were poor vision after photocoagulation, failure to treat with panretinal photocoagulation, delay in therapy, and a poor visual result.

Among those treated with photocoagulation, the surgeon "got lost" and erroneously burned the fovea in two cases. In two other patients, the surgeon treated a neovascular membrane and got too close to the fovea, resulting in a poor central vision. In other patients, the visual outcome was poor due to common complications of diabetic retinopathy despite proper treatment.

There were three cases of ischemic optic atrophy of unknown etiology. Three patients claimed they were not warned of the dangers of pregnancy in diabetic retinopathy.

A surgeon risks a mediocolegal claim if a lesion close to the fovea is treated, especially if the preoperative visual acuity is good. It is an established fact that patients frequently forget preoperative warnings about complications, especially if they are sight-threatening.[7–9] In the circumstances noted above, it may be wise to have the patient write in the patient record what he/she understands, after being properly informed. This is evidence that cannot be

denied because it is written in the patient's own hand. A preprinted form given to the patient to read at home and sign also is effective.

CATEGORY VIII: RETINOPATHY OF PREMATURITY (35 cases, 5.5% of the total)

These cases involved ophthalmologists as expert witnesses, but only in one case was an ophthalmologist the target of the suit.

The earliest claims in this category resulted from the practice of giving neonates more than 40% oxygen. A dictum had been developed that 40% was the upper limit that should be used and that any greater concentration constituted malpractice even though this arbitrary limit had no scientific basis. As a result, oxygen was severely curtailed while cerebral palsy, respiratory distress syndrome, and death increased in neonates. It was then decided that oxygen should be administered in whatever concentration and duration necessary for the neonate's survival. The incidence of suits increased again, this time based on the claim that oxygen was given for a longer period or in greater concentration than necessary.

In retrospect, I know of no category in which more nonmeritorious awards have been made. This was mostly due to the lack of knowledge concerning the etiology of retinopathy. Several years ago, small amounts of oxygen were sometimes the basis for an award. It is now generally conceded that prematurity itself is the most significant etiologic agent. In addition to oxygen, a number of other factors may play a role. These include pH, carbon dioxide, prostaglandins, vitamin E, and others.[10–12]

There is little doubt that some cases of retinopathy of prematurity were misdiagnosed and were actually familial exudative vitreoretinopathy or Coat's disease, Eale's disease, macular ectopia, etc.[13]

Occasionally, there is a case in which oxygen is used without a good indication, but these are now rare. There were none in the past 4½ years in this series.

An important factor in these claims seems to have been lack of adequate communication. A typical scenario follows. A very sick neonate finally survives, and after weeks of anxious agony, the parents are handed an apparently healthy baby only to realize that poor vision or blindness may be the ultimate problem. Had the parents been made aware of this possibility earlier (approximately 2 weeks after the birth), there would not have been this very unpleasant surprise. In many medicolegal situations, it is the unpleasant surprise that causes the anger which provokes the suit.

CATEGORY IX: POSTOPERATIVE INFECTION (33 cases, 4.7% of the total)

The majority of these claims concerned delay in treatment. If a postoperative patient complains of pain, very poor vision, and redness, it is difficult to defend the ophthalmologist who fails to promptly examine the patient and administer antimicrobials in the proper dosage and by the proper routes of administration.

There also were claims based on insufficient prophylactic antibiotics before cataract extraction or in retrospect the wrong choice of antimicrobials, but these have usually been easy to defend.

The claim was always defensible despite a bad result if proper antimicrobial therapy was started in a timely manner and by the accepted routes of administration.

CATEGORY X: ANESTHESIA PROBLEMS (32 cases, 4.5% of the total)

This group includes general, regional, and local anesthetics. Perforations associated with the injection of medicines also are included.

Cardiac arrest occurred in seven patients and resulted in death in four, including three adults and one 4-year-old child. Three cases involved general anesthesia, one local. In one case, the anesthesiologist was impaired. There were four other arrests with resulting brain damage including two children.[14,15]

Penetration of the globe occurred in 12 cases. Four of these were during retrobulbar injections and the remainder were either during attempted subconjunctival or sub-Tenon's capsule injections or scattered other causes including putting in a superior rectus suture or the injection of a local anesthetic for chalazion, akinesia, etc.

In five cases, the retrobulbar injection was followed by optic atrophy. Three of these followed retrobulbar hemorrhage.

Two dental injections for tooth extraction were associated with penetration of the needle into the sinuses, orbital abscess, and optic atrophy. There were scattered other causes, some of which warrant comment.

A surgeon who works with an impaired physician might be liable if there is reason to think that the impairment was known to the surgeon.

The causes of complications after retrobulbar injection whether penetration, hemorrhage, or optic atrophy have all been successfully defended because the surgeon must give such an injection without seeing where the point of the needle is or because the sense of touch may be negated by a thin or soft sclera.

CATEGORY XI: CLAIMS NOT PRIMARILY INVOLVING PHYSICIANS (27 cases, 3.4% of the total)

Often the physician was named early in the claim, but soon dropped.

CATEGORY XII: OCULOPLASTIC SURGERY (17 cases, 2.5% of the total)

There was great variation among the types of cases in this group. The only ones that occurred more than once

were: extrusion of prosthesis after enucleation, 3 patients; over correction of ptosis, 3; excision of a tumor near the lachrymal gland followed by dry eye, 2; sponge lift in orbit, 2; and pterygium followed by much scar or granuloma, 2.

The need for fully informing a patient before oculoplastic or other types of elective surgery is much greater than in cases that are not totally elective. The consent must be carefully documented.

CATEGORY XII: CONTACT LENSES (17 cases, 2.4% of the total)

There were seven cases of corneal ulcers after contact lens wear. *Pseudomonas* was the cause in four cases, and in three cases the type of bacteria was not recorded. Two others were simple corneal abrasion.

As noted in the Glaucoma section, some cases of glaucoma were thought to be due to malfitting contact lenses.

Questions concerning the proper care and sterilization of the lens arose frequently, both as to whether the patient had been instructed properly and whether the patient complied.

DISCUSSION

There have been several publications of medicolegal statistics in ophthalmology, most of which have been extracted from the closed claim files of insurance companies by lay persons with little or no knowledge of ophthalmology. The categories such as "failure to diagnose," "delay in therapy," omissions, commissions, etc., were too general to enable the practitioner to gain information that will likely diminish exposure to future liability.[16–19]

The majority of these claims did not come to trial, but were dropped or settled out of court. Fifty-five percent of those that came to trial were found for the defense and 45% were found for the plaintiff.[20] In some cases, the targeted ophthalmologist was unaware that a claim was even contemplated.

Although all of the claims involved ophthalmologic care, the ophthalmologist was not always the target of the suit. For example, the retinopathy of prematurity cases involved ophthalmologists as expert witnesses but, with one exception, did not target them in the suit.

The statistics in this report are only a suggestion of the relative incidence and may be misleading in some cases. During certain time periods, some types of claims were more common. For example, many claims based on oxygen therapy for premature infants were made between 1955 and 1965. Later, when oxygen therapy was used less frequently, the number of claims dropped. Claims increased again when oxygen therapy had a resurgence.

Obviously, there were no claims relating to intraocular lens implants or radial keratotomy until a reasonably large number had been performed.

The data also reflect that a general ophthalmologist collected them. Some neuro-ophthalmologic patients were probably sent to subspecialists, as were specific types of cases in other categories.

Therefore, these data are only an approximate guide, but are of significance because no other such data are available.

Extensive experience with medicolegal claims in ophthalmology emphasizes the importance of lack of rapport in instigating claims. Good rapport includes good communication and the latter means truly informed consent. If a poor result is a surprise to the patient, the subsequent anger provokes a visit to an attorney. The cases involving refractive keratoplasty (Table 1) are good examples.

The study also shows that expert witnesses can give testimony that later proves to be erroneous, even though they may attempt to be honest, unbiased, and informed. Errors may be made because the state of knowledge at the time is erroneous, as exemplified in Category VIII, Retinopathy of Prematurity. The expert witness is responsible for giving an opinion of the standard of care. Despite every attempt at honesty, whether the diagnosis and care were within the standard or not, mistakes can be and are made in evaluation.

No attempt has been made to indicate the outcome of specific cases or the amounts of awards, if any. Attorneys and insurance companies are usually very reluctant to provide such information.

Familiarity with the claims encountered by others may enable ophthalmologists to avoid similar claims.

Table 1. Categories with Less Than 2% of the 700 Cases

Category	No. of Cases	% of Total	Principle Reasons for Claim (if any)
Motility	13	1.9	Wrong muscle cut or globe perforated
Refractive keratoplasty	13	1.9	Deficient informed consent
Tumors	10	1.5	Missed diagnosis, especially meningioma
Neurologic surgery	9	1.5	Varied reasons
Optometrist	7	1.0	Missed diagnosis—glaucoma or tumor
Nasolacrimal surgery	3	0.5	No. not significant
Corneal transplants	2	0.3	No. not significant
Spectacles	2	0.2	No. not significant

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