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Guest Editorial

Heal the patient, protect thyself - Medicolegal pitfalls in ophthalmic trauma

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Ophthalmic trauma is defined as any injury to the globe and the ocular surface, along with the ocular adnexal structures. The latter include soft tissue structures such as the eyelids and periocular soft tissues, the lacrimal secretory and drainage system and also the periocular bony tissues such as the orbit and orbitofacial skeleton.[1] Structurally, functionally and esthetically important components of the human midface, the globe and adnexa are commonly involved not only from mechanical injuries, but also from other forms of injuries including thermal, chemical and far less infrequently radiation and electrical injuries. A not uncommon and frequently underrecognized entity is 'iatrogenic ophthalmic trauma' from procedures performed not only by the ophthalmologist but also other craniomaxillofacial, head & neck, neurosurgery and other specialties. Thus, residual morbidity may result not only from profound visual loss in one or both eyes, but also from significant deformity and dysfunction. With the rise in the role and the educational initiatives of global ophthalmic trauma societies such as the Asia Pacific Ophthalmic Trauma Society (APOTS), Ocular Trauma Society of India (OTSI) and the American Society of Ophthalmic Trauma (ASOT), an emphasis towards managing complex patients in dedicated Ophthalmic Trauma units in both exclusive ophthalmic institutions and in multispecialty hospitals is gradually emerging.[2]

Apart from the above mentioned medical, structural, esthetic & psychosocial consequences of ophthalmic trauma, several medicolegal pitfalls commonly exist in managing the ophthalmic trauma victim. Some of these include inadequacies in obtaining, verifying and documenting the circumstances of the injury, clinical and ancillary assessment errors, documentation deficiencies, management issues and finally, most importantly and frequently overlooked, communicative lapses.[3] Situations where such deficiencies occur include the severely traumatized victim with polytrauma and life-threatening injuries, facilities where an ophthalmologist or trainee is not readily available, assessment and management by inexperienced or untrained personnel without adequate supervision or guidance, and emergency units that lack facility and equipment in diagnosing and providing primary management, especially in rural areas.

Obtaining the history

Whilst emergency resuscitation and stabilization of the trauma victim is being performed, it is important to obtain a pertinent history from one or more of the following: patient, bystanders/family members and ambulance or transport personnel about the location and circumstances of the injury, use of protective eye wear if any (occupational)

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and any initial interventions performed.[4] This is especially important when the victim is unresponsive or under the influence of 'recreational substances' or alcohol. This documentation will not only be useful in further assessment of the patient but may also guide management, communication and follow up. This documentation has medicolegal value when medical reports are written later, workman's compensation is determined for residual morbidity and lawsuits are filed against the employer or healthcare in the future.

Assessment errors

While ophthalmic trauma victims get medical attention in the emergency room, not infrequently the comprehensive assessment of the patient is quite lacking. It should be remembered that open globe injuries (OGI), chemical injuries, orbital compartment syndrome (OCS) and globe subluxation are true ophthalmic emergencies and should be prioritized as such.[5]

Pitfalls in assessing the ophthalmic trauma victim may be classified into *clinical assessment errors* and *ancillary investigation errors*. Some of these which are preventable include an ophthalmologist or a trained clinician not being available to perform a comprehensive ophthalmic trauma assessment, not ascertaining the best possible bedside age-appropriate visual acuity assessment, examination performed by an untrained or poorly trained medical or allied health personnel, failure to ensuring structural integrity of the globe or even maintaining a suspicion for the same, missing bilateral globe injuries,[6] lack of proper pupillary assessment of both the affected and contralateral eye, not documenting the zones of injury,[7] and failure to sufficiently assess injuries to the adjacent ocular adnexal and periorbital soft tissue and bony injuries.

An important component of assessment is checking the ocular surface and forniceal pH in chemical injuries and requesting appropriate imaging such as CT scans (not MRI) in patients with suspect open globe injuries and orbital foreign bodies. In patients with suspected orbital fractures, an orbitofacial imaging rather than pure orbital imaging is highly recommended to ensure cranial, mid and lower facial fractures[8] are not missed which have major consequences. However, a delay in obtaining investigation should not delay early mobilization of the patient to the operating room for exploration and repair of a suspected open globe injury. It should be remembered however, in multispecialty centers where no ophthalmic personnel are readily available, closed globe injuries, open globe injuries and traumatic optic neuropathy is not missed or overlooked each of which have grave consequences if ignored.[9]

Documentation errors

Following a comprehensive history and clinical assessment, documentation of the ophthalmic trauma victim's extent and prognosis of injuries is most important. Common pitfalls include either not documenting at all, especially in a busy emergency room in a polytrauma patient, or inadequately or illegibly documenting the extent of the globe and adnexal injuries. An important component of documentation that is often overlooked is not computing the Ocular Trauma Score (OTS)[10] whenever possible, which plays an important role not only in counseling the patients and their families but also provides a reasonable guide to the clinician about the potential visual prognosis if well managed. However, a low computed score even with reduced probability of good visual improvement, should not preclude aggressive management of such globe injuries. It is imperative that a non-invasive external photograph should be obtained in all trauma victims to support the written documentation and the counseling of the patient. Prior to any intervention, a valid informed consent should also be obtained whenever possible and appropriately documented.

Management errors

Even when appropriately assessed and documented, numerous pitfalls exist in the management of the ophthalmic trauma victim. A frequent administrative lapse especially in multispecialty hospitals is inappropriate prioritization of the open globe injury patient. While P1 injuries are life threatening and should be addressed immediately, often open globe injuries which fall under P2 category are often ignored and repair performed only semi-electively rather than as a true organ saving emergency.[11] Other management errors include crude methods of primary globe repair without appropriate meticulous surgical techniques, inadequately trained ophthalmologists or young trainees repairing globe injuries without adequate supervision, failure to refer for better post-repair assessment by subspecialists for secondary repair or reconstruction, ignoring and not addressing adnexal injuries such as canalicular lacerations or orbital/facial fractures in patients with globe injuries and finally, in certain situations where patients end up with their eyes enucleated or eviscerated as a primary procedure for irreparable injuries, without proper preoperative counseling, documentation or justification.[12]

Communication errors

As in most medical situations, the final and most important aspect of medical litigation and complaints often arise from poor communication. This may be between the treating physician/team and the ophthalmic trauma victim and/or their families, or communication lapses with other members of the team within ophthalmology or with related specialties such as craniomaxillofacial, neurosurgeons or

trauma surgeons.[13] When medical misadventures happen despite best medical care, additional efforts not only in documentation and closer follow up of the patients but appropriate open disclosure is essential in ensuring trust is maintained and further long-term management may be continued.[14]

In summary, numerous pitfalls exist in the assessment, diagnosis and management of the ophthalmic trauma patient which ophthalmologists and emergency room physicians should be aware of and avoided at all costs. Even when outcomes are suboptimal, it is proper communication before, during and after management of the ophthalmic trauma victim that may avoid or minimize patient complaints and medicolegal complaints and indirectly heartaches and burnout. Effective communication, thorough documentation and transparency are keys for optimum management of ophthalmic trauma. All centers managing ocular and adnexal trauma patients around world should adopt a standard for medicolegal documentation. A continuous audit of the various processes including triage, clinical, surgical and patient reported outcomes, with periodic internal feedback and quality improvement initiatives further aid in ensuring ongoing improvement in care and outcomes.[15]

Practitioners around the world, in urban and rural areas, academic and service institutions should also be aware of the local laws, value of legally valid informed consent, statutes of limitation, emergency medical treatment and local labor laws to ensure that the intent to provide the best care to the patient is the paramount goal without need to practice defensive medicine.[16] As professionalism within our profession continues to increase and physicians and surgeons are held to a higher standard, we strongly encourage all ophthalmologists to become members of their respective fraternity, through local city, state, national and international professional organizations (eg. OTSI, APOTS, etc) where, by interacting and learning from peers and leaders, healthcare providers can further provide even better care for their patients, thereby healing the patient, but also practicing safe and medicine and thus protecting thyselves.

Conflict of Interest

None.

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