Al-Qanun

Summer, 2005

The newsletter of the Society for Creative Anachronism's Chirurgeonate

From the Editor

Lady Suzannah Merrybegot, Editor

Welcome to the Summer 2005 edition of Al-Qanun, the newsletter of the SCA chirurgeonate. As I stated in the last issue (Spring, 2005), this issue features more hands-on articles than we've seen in previous issues.

With the warmer weather, and increased number of events, it follows that chirurgeons will see a rise in the number of injuries. Thankfully, most of those injuries are minor, easily treated, and then everyone goes back to playing happily.

However, we might, on that rare occasion, be called upon to treat an injury that gives us pause, is cause for extra concern, and yes, might even scare us a little – particularly if we aren't used to seeing a certain type of injury. Injuries to the head would fall into this category. In worse case scenarios, an injury to an eye might result in loss of sight; to an ear, loss of hearing. A wrong shot to the mouth could result in loss of irreplaceable teeth. A scar that might be acceptable on an arm or leg is not so acceptable when viewed on the face. Even a minor cut on the scalp will bleed profusely due to the closeness of capillaries to the surface of the skin.

continued on page 2

THIS ISSUE

Eye Injuries in the SCA

Dame Eleanor Isabeau du Coeur, Chirurgeon General

Although eyes are extremely important, an eye injury is not something that should be terrifying. Although an injury to the eye can cause vision loss as one of the worst-case scenarios, eye injuries in themselves are not life threatening. We are fairly limited in what we can do for some eye problems as chirurgeons, but we can do some very simple things to help out in the cases we typically see in the SCA. So, what are the typical problems we see in the SCA? What do we do? When do we refer? What kinds of eye problems need immediate referrals? To whom do we refer the patient?

There are a couple of common things we tend to see in the SCA. The first thing we tend to see is a foreign object in the eye, typically from dirt blowing into it on a windy day. We also see injuries occur during a woods battle, from a pine tree branch hitting the eye and the tree needles scratching it. What happens is the fighter in the front will push a branch out of the way. Since helms limit the field of vision, the fighter next in line may not see the front fighter push the branch out of the way. The front fighter lets go of the branch and it whips back on the next fighter, who often can't see it until it's too late. We also see contact lens-related problems, the occasional black eye, and rarely, we'll see some kind of burn, either thermal or chemical, usually in the kitchen from a splash of something hot into the eye. Other eye problems or diseases will crop up from time to time, but these are very rare.

The next question is how a chirurgeon can help out the injured person in these cases after you' introduced yourself and obtained consent. Let's tackle burns first, since this is the eye injury that is a true emergency and where time really counts. Have the patient take out any contact lenses if possible, and immediately flush the eye

continued on page 2

Editor *continued from page 1*

Probably the best way to prepare yourself to deal with such injuries is to learn how to treat them before they happen. The following articles are all on various injuries to the head. **Lady Genevieve del Gamba**, who in real life is a general dentist in Brady, Texas, shares her expertise on treating dental emergencies. **Dame Eleanor** writes about eye emergencies – how to recognize and treat them. F**riar Galen of Ockham,** our former chirurgeon general, explains the three different levels of concussion – their symptoms and how concussion may affect a fighter.

Those of us who have been in the chirurgeonate for awhile know that strange and unusual incidents can happen in an instant. You will do yourselves, and most importantly, your patients, a favor by thinking ahead about what type of injuries you might see and how to treat them. Until the next issue, take good care and may your events be uneventful.

CONTRIBUTING AUTHORS

Lady Suzannah Merrybegot (Susan Heemstra), is an executive assistant at the Chicago Botanic Garden. She volunteers her time as a journeyman chirurgeon, is a Red-Cross Instructor, teaches a History of the Black Plague class at Pennsic and has performed with the Known World Choir. Suzannah, who suffers from a terminal case of helium-hand, is a member of House Red Winged Lion.

Dame Eleanor Isabeau du Coeur (Beth Hart-Carlock), is a Doctor of Optometry in Kenosha, WI, in the new kingdom of Northshield. She is a Pelican, master chirurgeon, mother to a 7-year-old boy, a 4-year-old girl and three cats, and holds down the fort while her husband is on active duty. Eleanor has served as kingdom chirurgeon for Calontir and principality chirurgeon for Northshield before being selected for the duty of Chirurgeon General.

Lady Genevieve del Gamba (Dr. Susan Delk) is a general dentist practicing in the small town of Brady, Texas. She is a Journeyman Chirurgeon, Master Waterbearer, ER Deputy Kingdom Chirurgeon and Kingdom Waterbearer. She is an apprentice/protégé to Mistress Xene Theirane, OL, OP. In her free time she enjoys the gentle pursuits of embroidery, cooking, archery, and hunting.

Master Friar Galen of Ockham (Keith Brandt, M.D.) is an Aerospace Medicine physician in the USAF. His work as a flight surgeon involves working in austere environments and being responsible for emergency and preventative medicine – just like being a chirurgeon. Friar Galen is a 14th century Franciscan Friar, has served as the Chirurgeon General of the SCA and received the Order of the Pelican for his work in the chirurgeonate.

Eyes *continued from page 1*

with lots of saline or water. If the contact lens is stuck, rinse the eye anyway. The rinsing will often cause the lens to come out on its own, and if not, the eye doctor will be able to find it with little trouble—contacts can't get lost behind the eye. Tilt the person's head so the saline drains away from the eyes. Rinsing with copious amounts of fluid is extremely important for chemical burns, particularly alkali burns, which can devastate the eye and vision. Don't drip the saline in, pour it in, and continue doing this while the patient is taken immediately to the ER or until EMS takes over. The recommended time for flushing chemical burns is at least 20 minutes, and it's going to seem like a very long 20 minutes. It's also nice if you can give the patient a towel to place along the edge of the face so the saline doesn't drip into his ear. If possible, take the chemical that caused the burn to the ER so they can see what it is.

For foreign object injuries, the goal is to rinse it out if possible. Have the patient remove the contact lens in the affected eye, if he is wearing one. Rinse the eye really well with saline. If it comes out, the person will usually experience instant relief when you finish rinsing. If there's no relief the first time, try a couple times more. If the eye doesn't feel better after rinsing several times, it's likely that the foreign object is either stuck on the eye somewhere, or the object came out but scratched the eye and the scratch makes the eye feel like something's still there. If the object comes out, great. The patient usually goes on his way, though you will want to tell that person to see his eye doctor if he has any problems with his eye or vision. If the patient still feels like he has something in his eye, refer him to an eye doctor or the ER for further evaluation. I prefer to send the patient to an eye doctor (either optometrist or ophthalmologist—state laws have changed so both can treat eye disease and prescribe treatments. Typically, a patient can get into an eye doctor's office more quickly for treatment and the cost is usually lower than an ER visit. A referral is especially important if the foreign object was metal, particularly if the person was hammering or polishing metal. Metal foreign objects can rust in a very short time, and for those cases where the metal foreign object is the result of polishing or hammering metal, the shard may have actually penetrated into the eye and that needs to be evaluated quickly. If the object is stuck, the eye doctor can quickly remove it and treat any scratches resulting from the foreign object.

continued on page 3

Contact lens problems are fairly common, mostly from wearing a torn lens. In spite of instructions to the contrary, nearly all my contact lens wearers who have an eye problem come into my office with the contact lens still in the problem eye. Have the patient take out the lens. If that solves the problem, great. The lens should be thrown away and if problems continue, the patient should see the eye doctor. If the eye is really red, has discharge, the vision is blurred, the person is very light sensitive, or the problem remains, that person should see the eye doctor that day. The patient may have a bit of a scratch, or could have a nasty corneal ulcer.

While many of us think that 'black eyes' are not a big deal, I always approach these with a good degree of caution. If the eye itself is involved with redness, blurring, double vision, or if something the size of a tennis ball or golf ball hit the eye, I refer these immediately to the ER because the patient may have fractured one of the thin bones in the eye socket. If the eye is white, the accident was obvious and minor (say, the glasses hit the eyebrow and cut it, and there are no other eye or vision symptoms, a cold pack to bring down the swelling and bruising may be all that's required. However, if you have any questions at all about the eye itself being involved, I would also refer that on for medical care.

What other kinds of eye problems require a referral either to an eye doctor or to the ER? Some eye problems are emergencies that need to be seen immediately. These would include:

- Chemical burns
- Sudden onset of double vision
- Sudden loss of vision in one or both eyes, even for a short period of time
- Active bleeding from or in eye
- Person complains of suddenly seeing many floaters, flashes, or feeling like there's a veil or curtain in the vision
- A large foreign object sticking out of the eye or the person thinks something may have gone 'all the way in the eye'
- Eye popped out of its socket
- Severe pain in eye
- Significant blunt trauma to eye
- Torn eyelid or cuts on the eye itself
- Anything that really makes you feel like it's an emergency

Other conditions, while perhaps not warranting an ER visit, are things that need to be evaluated that day by an eye professional. Even if some of these aren't sight threatening, evaluation and treatment may make the person much more comfortable. These cases include:

- Pain in eye
- Small object in eye
- Contact lens related eye infections or problems
- "Pink eye" or signs of infection
- Extreme light sensitivity
- Red eye
- The white of the eye looks bloody but there was no accident or cut causing it
- Decrease in vision or blur
- Black eye
- Blurry vision
- Straight items look crooked or warped.
- Extreme itching
- Person can't get a contact lens out of the eye or thinks it's stuck in the eye
- Anything that seems to be unusual about the eyes or vision

Eye injuries don't need to be something that causes fear. If the situation is not something that can be treated by simple first aid treatments and is not an emergency, send your patient to an eye care professional. If it's an emergency, send the person to the ER or call EMS if needed. Most patients will receive treatment, do very well, and return to playing SCA quickly.

Chirurgeon Fortune Cooky:

See one, do one, teach one

Dental First Aid for Chirurgeons

Lady Genevieve del Gamba

It's Crown Tournament and you are Chirurgeon in Charge. The Tournament has gone well, and you have been bored all day. As you watch the semifinals, you see Duke Rhino Hide hit Sir Robert the Handsome right in the grill of his helm. Sir Robert's chin strap was worn, but the marshals passed it anyway. With Duke Rhino's hit, the strap broke and the helm was forced right into Sir Robert's nose and mouth. The Marshals call "Hold!" and horrified, Sir Robert realizes that he is now missing a front tooth and is bleeding profusely from his mouth and nose. "Chirurgeon!" he screams. The Marshall calls you onto the field. What do you do?

Unfortunately, the above scenario is based on a true story. Dental injuries in the SCA are more common than most chirurgeons think. The most common injury is described above, whether the tooth is completely knocked out or only loosened. Very few fighters, whether chivalric or fencing, wear custom fitted sports mouth guards. Dental accidents can also happen to bystanders where a fall can knock out a tooth just as easily as a hit during a tournament.

The first thing is to calm the patient, just like any other call. If the tooth is missing and is not in the oral cavity, look on the ground or in the helm for the tooth. Ask the patient if he thought he swallowed the tooth. Once you find the tooth, check its condition. Does it look whole and have all its roots? How clean is it? If the tooth is dirty, do not scrub the tooth. This is extremely important. Rinse the tooth off in milk, saline, or water. There are important cells and tissues that will still be attached to the avulsed (knocked out) tooth that are vital for the tooth to reattach to the bone when re-implanted. Next, help to control the bleeding. Many times the lip will be lacerated or the nose will be bleeding after an accident like this. Control that bleeding as well. Put some gauze (2x2 size is perfect) folded into a square over the bleeding socket and have the patient bite to control the bleeding. While the patient is doing this, you can rinse off the tooth (remember, only rinse gently) and find a container (clean) for the tooth. Place the tooth in milk or saline and make sure the patient takes it with them to the hospital. The patient needs to see a dentist within 90 minutes of the tooth being knocked out or they will lose the tooth. Most major hospitals will have an oral maxillofacial surgeon who can re-implant this tooth when they get to the hospital. Any general dentist can also do this. A kit can be ordered from your local dentist that has pre-made solution and container to carry the tooth to the dentist. It's called Save-A-Tooth and is a great addition to your kit.

If the patient cannot make it to a dentist or hospital within 90 minutes, it is within the scope of first aid to re-implant the tooth. Make sure the tooth is rinsed of visible dirt, debris, etc. Gently hold the tooth with two fingers and place the tooth in the socket. There will be discomfort, so advise the patient before you replace the tooth. Push the tooth gently into place and caution the patient not to disturb the tooth. The patient must still see the dentist as soon as possible to stabilize the tooth.

Sometimes the tooth is only partially knocked out or loosened. Do not pull it the rest of the way out. First aid in this situation is to gently reposition the tooth. This will be uncomfortable for the patient, so inform them what you are doing. Most dentists would rather see the tooth put gently back in place as closely as possible rather than have it dangling two hours later. Bleeding will likely be present, so help to control that as well by using a gauze bandage and pressure. Encourage the patient to go to the hospital or see a dentist as soon as possible. Caution the patient not to eat or drink until they see the dentist so they don't disturb the tooth further.

Custom fitted sports mouth guards or football-type mouth guards will prevent most of these injuries. Encourage your local fighters to wear a mouth guard.

Most other dental-related calls are fairly mild. Occasionally folks will have fillings that come out or will have a toothache. When a filling comes out, recommend that they can get a temporary filling material at most drug stores that can cover the hole or they can wait to see their dentist when they get home. Toothaches (especially if they are swollen) need to be referred directly to a dentist or ER for antibiotics. Swellings in the gum should also be treated like a toothache. Remember that the teeth and gums are located very close to the brain and any infections in them should be handled with care.

On Concussion

Friar Galen of Ockham, MC, OP

As the Chirurgeon on duty at the list, you were concerned when you saw the Duke's great sword strike an unimpeded blow square on top of Sir Helmhide's head where it landed with a resounding thud. Sir Helmhide dropped immediately. The Marshals ran to his side, and after a long 30 seconds he slowly got up and shook his head. They helped him remove his helm and he was assisted off the list to his waiting squire, Reginald. All appeared fine at the time and you were not summoned to the field. Then Reginald appeared. He tells you Sir Helmhide seems a bit more befuddled than usual. He doesn't remember his bout with his Grace, and he's unsteady on his feet and using stranger than usual words Reginald doesn't feel his Knight's quite his usual self and is rightly worried.

"Sir Helmhide, are you ok?"
"Sure, I just need to get out of this traffic"
"Traffic?…"
"Er…sorry, can you help me to my pavilion?"
"Of course…here you go. Have some water."
"Thanks. When did you get here, Reginald?"
"I got here about 15 minutes ago, just as you were coming off the field from facing Duke Hammermeister."
"Don't be ridiculous. I haven't fought today. And the way my head hurts, I may not."
"OK...You know, you're not walking so good."
"Yeah, maybe I should just sit here in the shade of this babblequirk for a while."
"This what?"
"You know, the alfhast."
"I'm getting a Chirurgeon…."

A concussion is the most common head injury in contact sports, including SCA heavy combat. It is defined as any change in mental status after a head injury. This can include dizziness, headache, difficulty in concentrating, changes in vision or balance, loss of memory after the injury, or loss of consciousness. Fortunately, the standards for helms and blow calibration make concussions much less common in SCA heavy combat than in sports like high school football. You are probably more likely to have a non-fighter with a concussion from accidents at the event site, though this article will deal primarily with fighters as they are unique for wanting to return to the same activity that got them clonked in the first place. Most concussions resolve with no residual problems, however it is important to know the key signs to ensure you aren't missing a more serious injury.

Unfortunately, there have been at least 16 different sets of concussion guidelines published. One of the more recent sets of guidelines come from the American Academy of Neurology (AAN). I will use these guidelines in this article as they are current and lend themselves well to the SCA setting.

The first consideration is, as always, to the ABCs and c-spine injury. If the patient is unconscious, their c-spine should be immobilized and ambulance called for full spinal immobilization and transport. If the victim is wearing a helm, it should not be removed unless necessary to control the airway. Likewise, any complaint of neck pain should be treated as a neck fracture until proven otherwise.

A grade 1 concussion is defined as symptoms of a concussion lasting less than 15 minutes and no amnesia following the injury. The fighter should be advised not to return to the field until they have been without symptoms for at least 15 minutes.

In a grade 2 concussion, the victim has no memory of events for 30 minutes after the injury or symptoms that last longer than 15 minutes. They cannot have been knocked out. These fighters should be advised not to return to fighting for a full week *after* all their concussion symptoms disappear.

A grade 3 concussion is one that involves any loss of consciousness. If the time of unconsciousness was just a few seconds, the victim should be transported to a hospital for evaluation and stay out of contact activities until the symptoms have been gone for one week. If the time of unconsciousness is more than a few seconds, they should also be evaluated in a hospital, but should wait for two weeks of no symptoms before returning to fighting.

Telling a fighter not to fight is always a touchy situation. As Chirurgeons, we can only make suggestions, not ban them from the field. However, in the case of a concussion the suggestion should be made as firmly as possible.

Further injury should be avoided at all costs because of the second-impact syndrome. If a person who is still

continued on page 6

symptomatic from a concussion receives a second blow to the head, even a minor one, it can result in very rapid swelling of the brain leading to death from herniation in a matter of minutes (think of squeezing a toothpaste tube…that's what happens as the brain tries to squeeze out the hole at the base of the skull). While this isn't common (17 cases were reported from 1992 – 1999), it is entirely preventable.

A less serious problem that can occur if the fighter returns to fighting too soon is post-concussion syndrome. A person with post-concussion syndrome can have fatigue, headache, unstable balance, and difficulty concentrating for months following the injury. Gentles with post-concussion syndrome should be evaluated by their physician.

These guidelines assume that this is the first concussion the person has suffered. There is evidence that once you've suffered a concussion, you are more likely to have a second one. All the guidelines recommend a longer return to play period following a second concussion. A third concussion in one season bears a universal recommendation to sit out the remainder of the season.

After an hour of rest and rehydration, Sir Helmhide was only suffering from a mild headache. He was walking and threatening his squire normally. Since he felt pretty good, he was adamant about returning to the list, especially since he didn't remember his first round. After gathering together Sir Helmhide, the Marshal-in-Charge, his Lady, and a couple of his sword brothers, you explain to him that he has suffered a Grade 2 concussion and he shouldn't fight until he has been symptom free for a week. You make sure he knows the decision is his, and also describe post-concussion syndrome and second-impact syndrome. Sir Helmhide feels that the risk is worth taking, however his Lady and household are impressed with your knowledge of the injury and and Sir Helmhide spends the remainder of the day cheering on his sword brothers and helping with waterbearing. He's quite proud at evening court when Reginald is named "Most Chivalrous" and is the tourney runner-up to Duke Hammermeister.

References

Estwanik, Joseph. Sports Medicine for the Combat Arts. Boxergenics Press. 1996.

Harmon, Kimberly G. Assessment and Management of Concussion in Sports. American Family Physician, 1999; 60(3):887-893.

Kibler, W. Ben, ed. ACSM's Handbook for the Team Physician. American College of Sports Medicine. 1996.

Lillegard, Wade A, Janus D. Butcher, Karen S. Rucker. Handbook of Sports Medicine: A Symptom-Oriented Approach, 2nd edition. Butterworth-Heinemann. 1999.

ANNOUNCEMENTS

QUARTERLY REPORTS

Chirurgeons, if you have not already done so, please send your Quarterly Reports to your regional chirurgeons immediately. Regional chirurgeons are to send in their Regional Quarterly Reports before June 8, 2005. (If you haven't sent in your report and you're reading this, you're late!)

MIDDLE

Engelbert the Pious (Peter Engelbert) has been appointed the new Constellation Regional Chirurgeon. Peter Engelbert is an EMT instructor. We wish Engelbert success in his new position. Welcome and Vivat!