

LIGHTNING DATA CENTER MINUTES

March 10, 2016
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO

“...lightning is neither an AC or DC phenomenon...” Source: Khan, et.al., 2016: Monograph – Electrical and Lightning Injuries. Link: <http://www.ahcmedia.com/articles/137250-electrical-and-lightning-injuries>

1. Meeting began at 11:45 AM and adjourned at 1:00 PM. Members Present: Clark, Johnson, Stewart, Wachtel, Langford, Yarnell, Nibbe, and Swanson. Clark moderated.
2. Dr. Yarnell presented a new lightning case and updated information for a previous case he presented.

Last month, Dr. Yarnell presented the case of a boy struck while in a field. The doctor seeing the patient said the patient was in a poorly responsive state. The doctor wanted advice on what to do. Should testosterone or growth hormones be given? They could help with regrowth of the axons, but it takes a considerable time for the axons to regrow. Also, this treatment is not proven. Should they tell the parents they would be using unproven approved meds, but with off-label use to help address the devastating effects of the strike? Undesirable side effects & complications would be possible. Is it worthwhile? Al Nibbe said the patient and family must and should be advised of the risks involved. Rehab people are studying testosterone for brain injury, but the jury is still out. Hyperbaric oxygen is supposedly helpful for brain injury, but the evidence is only anecdotal.

Phil also talked about how some treatments were pioneered. For example, by World War I, it was learned that gas blocks the neurological junction. Could the same treatment be given to treat myasthenic patients that was given to people that were gassed? The use of neostigmine to treat myasthenia gravis started as an educated guess treatment.

3. Case 2: A man hiked to 12000 feet and woke up sitting up against a tree, wet, with burns on his feet. There was evidence of a strike. The patient had bilateral hemorrhage in his brain and both eardrums were ruptured. Basal ganglia is considered a rare sequela of lightning. He spent six days in the hospital, then went home and began PT. Following his PT sessions, patient had numbness in his hands and feet. His gait was ataxic spastic. He had reconstructive surgery of his left tympanic membrane and still needed a hearing aid. His reflexes are abnormal. A Romberg Test, a test of his balance without vision, showed him to be unsteady Clumsy with hands. There was air in his head, which would indicate a skull fracture, but no evidence of a skull fracture was found. MRI shows fluid in mastoid. Cervical MRI showed some subtle changes.

Over time, his condition was markedly improved. The gait was functional. He still was numb in his trunk and his hands. He was able to walk and go skiing. His family thought his thinking was close to normal - about 85%. He has stopped PT but still does pool walking and swimming. He still has hearing aids. He has slept and napped more than normal. There still is some emotional intolerance.

More recently, patient was skiing solo. He still has pains, but is planning to return to work.

Retrograde amnesia was discussed with finite time for the brain to fix the mechanisms needed to record memories, which could explain why patient does not recall the strike. Carl Swanson asked if hypnosis could retrieve the memory of what happened.

4. Questions, comments, notification of errors, and critiques of these minutes are welcome. Please forward those to Steve Clark at: sclarktoto@gmail.com. Please keep your communications professional and respectful. Communications will be forwarded to the appropriate author(s) of the minutes and addressed accordingly.
5. LDC Disclaimer: These minutes do not represent official positions of the LDC or its members. They simply reflect the comments made at the meeting. Furthermore, the LDC does not implicitly or explicitly recommend or endorse any product or service. Any product or service presented in these minutes is done so for purposes of discussion and analysis. The merit (or lack thereof) is open for the consideration and review by the entire membership.
6. Next meeting: Friday, April 8, 2016 at 11:45 AM at St. Anthony Hospital West in Conference Rooms A & B.

Respectfully Submitted,
Steven E. Clark, Consulting Meteorologist

Lightning Links

This is a monthly listing of periodicals, websites, and videos about lightning and allied areas from a variety of sources. A headline or description is listed, followed by the link. Please note that some of the links are perishable, which means you'll need to go to the source for the information.

No links this month.
