

LIGHTNING DATA CENTER
ST. ANTHONY HOSPITAL
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Quote of the Month:

The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.

Sir William Bragg (British physicist; used X-ray diffraction to study crystal structure; Nobel Prize in Physics 1915)

1. The meeting began at 11:45 am and adjourned at 1:15 pm. Mike Foley chaired the meeting in the absence of Dr. Cherington.
2. Members present: Collier, Elson, Foley, Gift, Keen, , Langford, Lines, McDonough, Middleton, Russon, Sanders, Stewart, Wachtel, Wells, Yarnell.
3. Greg Stewart brought in two articles:
 - a. Forget the gods - we shape lightning - from the Nov 20, 2003 edition of the Christian Science Monitor-csmonitor.com web site:
<http://www.csmonitor.com/2003/1120/p21s02-sten.html>
(Abstracted in Part here) Science Notes By Robert C. Cowen Mythology considered lightning the plaything of "the gods." Science explained its atmospheric physics. Now research shows it also can be shaped by human hands. Especially in cities. Recent research suggests that crowded urban centers become "heat islands," whose relative warmth encourages thunderstorms. And pollution from cars and industries encourages lightning strokes. It's "a very real effect," says Prof. Richard Orville at Texas A&M University in College Station, Texas. (553 words).
 - b. Miracle Man Struck by lightning 3 times, LHC man's recovery 'against the odds' earns him statewide recognition ; from Today's News-Herald, Lake Havasu City, Arizona. Web Site :
<http://www.havasunews.com/HAVASUNews/myarticlesearch.asp?S=463&PublD=11775&P=704083> (Abstracted in Part here) At 15, Jack Pettit was struck by lightning three times in one day. At 22, doctors told him that grand mal seizures would kill him. Then surgery almost made him a medical guinea pig. But he never let any of that get him down. Now at 73, he's a retired Presbyterian minister who volunteers for Hospice of Havasu, and one of 18 nominees in six categories for the "Ageless Hero" award presented by Blue Cross Blue Shield. Date: Monday, November 03, 2003 (note to S Elf: see "3 Strikes" in Injuries folder)
4. Bill Sanders discussed the "fire-starter lightning" photo that is circulating the internet. LDC members have commented, pro and con, on its authenticity.
5. Karen Wells commented on the literature research in which she participated with Dr. Cherington of the origin (etymology) of the term keraunoparalysis in - Critchley, "The effects of lighting: with especial reference to the nervous

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system," Bristol Med Surgeon J, vol 49, 285-300, in 1932 We researched -J. Charcot, "Wirkung des Blizschlages auf das Nervensystem," Wien. Med. Woch, 1890, 40, 9, 57 and 104.-Gilpin A. King's Coll. Hospt. Gaz 1933, xli. Clin. Suppl. and -M. Charcot "Clinique des Maladies Nerveuses," 1835.

However, while these mentioned the clinical condition, the closest we could come was the term "keraunographiques." So it is still a mystery, somewhat.

Also, according to the National Library of Medicine History Division, the indexes there up to the 19th c. (up to 1890) sees no occurrence of the term in any article. Apparently, the best guess is that Charcot did not term that phrase, as from a historical perspective, the term is a lightning term in Greek, which connotes English rather than French origin. The English tended to favor the Greek terms. Kerauno means "thunder." Charcot may have been the first to describe it (although he is not the first to coin the term,) and an Englishman probably coined the term.

6. Dr. Yarnell mentioned two items of interest:
 - a. An article in Nature magazine
<http://www.nature.com/nsu/031110/031110-19.html>
[Astrophysicist strikes blow to lightning theory](#)
Model suggests electric fields cannot grow large enough to generate bolts. 17 November 2003 - BETSY MASON.
The conventional view of how lightning is produced is wrong, according to a Florida-based physicist. Electrical fields in the atmosphere simply cannot grow large enough to trigger lightning, calculates Joseph Dwyer of the Florida Institute of Technology in Melbourne. "This means back to the drawing board," he says.
 - b. A 52 yr. old male, lightning strike survivor patient was referred to Dr. Yarnell. The patient had severe memory loss, including self awareness, and objective date awareness. As an example the patient did not know when Christmas was, or if his mother was living. Dr. Yarnell commented that this was unusual, as most memory loss experienced by lightning strike survivors is not this severe. The group discussion comments included that perhaps other factors may be involved in the memory loss condition.
7. Maury Miller, Investigator/Deputy Coroner of the Larimer County (Colorado) Coroner's Office presented a case study of a lightning strike fatality and injury that occurred May 31, 2003, at about 5 PM, at Boyd Lake, in Fort Collins, Colorado. A summary of Maury's excellent presentation is that two adult males were fishing at the edge of the lake, at William's Landing, which was about 30 feet lower than normal and placed the shoreline in soft wet sand. A severe thunderstorm was in the immediate area and included heavy rain and numerous

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nearby lightning strikes. Other people around the lake sought shelter in their nearby vehicles. One male was severely injured and was probably dead at the scene, the other victim was unconscious, but did regain consciousness at the scene. Both were transported via ambulance to the nearby hospital. The severely injured male was pronounced dead at the hospital. Injuries included singed body hair along the right side leg, buttocks, and shoulder. Eye lashes were also singed. A metal necklace had several of its gold metal links fused and the victim had burns where the necklace was around his neck. The deceased was wearing a ball cap which was not recovered by the EMS personnel. Fern-patterns were noted on his right side and photographed about 10 hours after the incident. An autopsy was performed about 16 hours after the incident. The only abnormal finding was the presence of cocaine.

An excellent discussion among members brought forth the recommendation that this incident be included in the group of 2003 Colorado lightning incident that will have a multidisplinary case study prepared by LDC members. Maury will be sending Mike Foley a file of all available information. Thanks to Maury for a very informative presentation.

8. These minutes do not represent official positions of LDC members. The minutes reflect the comments of members present.
9. Next meeting will be at 11:30 A.M. on Friday, January 9, 2004 in the Main Auditorium of St. Anthony Central Hospital. Guest Speaker: Dr. Philip Yarnell will be presenting case reports.

May all members and their families have a joyous and happy holiday and a healthy, safe, and prosperous new year.

Respectfully submitted,

Michael J. Foley
LDC Vice-Chair