

Quote of the Month:

"The legend of St. Elmo's Fire originated with sailors. They saw the mysterious burst of light at the top of their masts as a sign of protection from God. Ironically, the appearance of St. Elmo's Fire may mean that conditions are right for lightning to strike. .... While ball lightning eludes scientists, it hasn't earned the same prophetic significance as St. Elmo's Fire. St. Elmo is the patron saint of sailors; this "fire" is named after an Italian bishop who lived around A.D. 300. By most accounts, the association of St. Elmo's Fire with safe travel on the sea originated with the voyage of Ferdinand Magellan during the sixteenth century. Reportedly, the ship was being tossed about by a storm and the sailors feared they were about to meet their maker when one of them saw St. Elmo's Fire. After that, the storm ceased and the sailors saw it as a sign that no harm would come to them.

"However, the electrical charges that produce St. Elmo's Fire can be quite dangerous: The conditions that lead to St. Elmo's Fire are close to those that produce a lightning storm....the green (and sometimes blue) light of the "fire" is produced when a large positive charge flows up an object to get to an electrically charged cloud. As the electrons are pulled, the air heats up, causing the greenish glow."

Louise Quayle in Weather

1. Meeting began at 11:30 am and adjourned at 1:10 pm.
2. Members present: Breed, Cherington, Collier, Kithil, Rossie, Shook  
Members who called to say they could not attend: Foley, Keen, Langford, Yarnell
3. Randy Shook, Director of Public Information, discussed some of the issues relating to communicating with the media regarding patients. He pointed out that the Hospital has a policy on media relations and patient confidentiality concerns. In brief, patient authorization is required before information can be given to the media. This matter was topical because of a recent lightning victim who received much media attention this week. George Rossie pointed out that these media sessions can provide an opportunity to educate the public on safety measures.
4. I reported on the recent visit to Denver by Nicolas Floret. Several LDC members were able to spend a day with Nicolas in Denver, in Boulder, at NCAR. We had a delightful dinner at Sfuzzis Restaurant in Denver. Nicolas is with the Helita Company of France. He is working with the APERI International Workshop of Lightning and Human Beings in Osaka in June 1996. He would like to learn about our thoughts as a group on matters of lightning safety for individuals at risk. Those at the Workshop will collect the recommendations of experts from across the world. We decided to develop our own suggestions and forward them to Nicolas. Rich Kithil gave one example of misleading

information that is sometime give to golfers: "metal cleats in the shoes do not increase the risk." Rich stated that wearing metals, including cleats, in fact does increase a person's risk during a lightning storm.

5. Rich Kithil reported on his recent visit to Florida, which was also visited by the Hurricane, Erin. Rich pointed out that state officials and the media did an outstanding job in disseminating information to the public. He brought back an article from the Tampa Tribune, dated August 1, 1995, entitled: "Take care during lightning season."

Rich visited with Dr. Martin Uman while in Florida. They discussed several matters including: rocket triggered lightning, LDC, etc.

Rich presented data regarding recent lightning casualties to military personnel:

Fort Jackson, SC	4 injuries	1 fatality
Fort Sill, OK	4 injuries	
Fort Bragg, NC	3 injuries	2 fatalities.

Rich reported that NFPA has voted on changing their positions on lightning rod air terminals. They rejected the early streamer as a standard and have downgraded the Franklin terminal.

6. Rich Collier distributed copies of his manuscript to be presented at the 1995 International Aerospace and Ground Conference on Lightning and Static Electricity. His paper is entitled: "Finite Difference Calculations of Lightning Effects at the Space Shuttle Launch Pad."

Rich Kithil will also be presenting a paper at that meeting. His manuscript, "A Risk Management Approach to Lightning Safety" was distributed at the last meeting.

Phil Yarnell and I have a poster presentation to be given on the topic of lightning strikes to the head at the American Neurological Association meeting in October.

7. George Rossie spoke about the psychological and somatic symptoms that are commonly seen in lightning victims. He outlined several methods that are useful in assessing these symptoms including:
  - a. Measure stress across time by obtaining information from family and friends of the patient.
  - b. Perform psychological tests such as: MMPI; Forced Choice Malingering Test.
8. Dan Breed reported that the season for flying the sail plane is nearly over. Dan and his associates at NCAR reach altitudes of 24,000 to 30,000 feet in electrified clouds. The plane is equipped with copper wires over the canopy which acts as a Faraday cage. Lightning did strike the plane this week.

Most lightning strikes occur at the wing tips where coronal discharges can initiate the lightning discharge. Dan stated that the static wicks at the trailing edges are not very effective.

9. Next meeting: Friday, September 8, 1995, at 11:30 am in Conference Room B at St. Anthony Hospital Central.

Respectfully submitted,

  
Michael Cherington, MD  
Chairman, LDC