

Quote of the month:

"That summer Annie took her son [Oscar Levant] to an outdoor concert in Schenley Park offered free of charge by the Pittsburgh Symphony. It was a beautiful summer evening, and, surrounded by a vast crowd of concertgoers, seven-year-old Oscar and his mother found their places on Schenley Park's lawn....Tchaikovsky's 1812 Overture was on the program. Enthralled by the heroic dimensions of the overture, the two music lovers were startled out of their reverie by a loud thunderclap. With a streak of lightning the sky opened up and rain drenched the panicked crowd....From that day on, Oscar could never hear the 1812 Overture without cringing."

Kashner and Schoenberger

1. Meeting began at 11:30 am and adjourned at 1:30 pm.
2. Members present: Breed, Cherington, Fischer, Hodge, Keen, Kithil, Larson, Rudolph, Yarnell.
3. Rich Kithil introduced David Aremu of American Technoexport Resources, Inc. of Nigeria.
4. Phil Yarnell brought us up to date on recent patients who were struck by lightning. The 16 year old boy who was struck in the head and recovered after resuscitation was now showing signs of post-hypoxic syndrome. His mother reported that he was showing severe behavior problems. The 51 year old man who was struck in the head had been unresponsive for 4 to 5 days. He has shown some mild signs of improvement. Phil commented that head trauma patients who are unresponsive for more than 72 hours almost never are able to return to full time work as they were before the accident. This is based on his experience with head trauma cases at Denver General Hospital and at St. Anthony's Hospital.

Phil has spoken with Dave Breggin about contacting the Boy Scouts of America regarding evaluating the scouts who were in the vicinity of a recent lightning strike. Phil has tried unsuccessfully to reach the scout master by phone after several phone messages. Dave will ask the Boy Scouts if they want to follow up on this project. If so, Phil will arrange to evaluate the group and arrange for ophthalmology consults if needed.
5. Richard Keen brought slides of lightning "bolts out of the blue" which he has taken during night-time lightning. He also reported on the Coal Creek Canyon data on thunderstorm days for the past season. There was a seasonal shift this year with more thunderstorm days in August and September than in the earlier months. A thunderstorm day is defined as a day with audible thunder. This is monitored by personal observation and recording of static on AM radio. (Bottom of AM radio band = 10 KHz.)
6. George Hodge brought his 15,000 volt generator, step-up transformer known as a Jacob's Ladder. He demonstrated the

electrical arcs (lightning-like) by turning on the Jacob's ladder (30 mamps).

George mentioned he is searching for a hydrogen alpha filter in order to take pictures of lightning during the daytime. The filter blocks out sunlight.

- 7. Dan Breed brought us up to date on the case of a woman in Cincinnati whose home was invaded by lightning via a TV cable line which had been connected to a tree just outside her house. She suffered eye and ear problems. As a result of the legal case, the FCC has now introduced regulations regarding the placing of cable TV lines. During the round-table discussion, the matter of cordless telephones was mentioned. They are relatively "lightning-safe" because the message from the base to the phone is via radio frequency.

Dan brought a 5 minute video which showed cloud to space discharges. The video was prepared by a group from the University of Alaska. It was entitled "Red sprites and blue jets". The discharges reached 90 kilometers. The Alaska group has been studying aurorae.

- 8. David Aremu spoke about his work in Nigeria. He is engaged in lightning protection project for large tanks of crude oil. Spontaneous ignition of vapors under the floating roof of these tanks has been a major problem. There are 250 lightning days per year in Nigeria.
- 9. Terry Rudolph and Ron Larson have been working on simulated lightning experiments. They have been looking a several models including high electric fields near strike points on the ground and in bodies of water. One conclusion that is obvious is that salt water is safer than fresh water.

We hope to begin planning for grant funding for LDC with at least 3 phases: Basic science-simulated lightning investigations with medical implications; clinical studies; and education efforts. We shall make a appointment in the near future with Mr. Ron Mirenda to proceed with grant applications.

- 10. Ron Larson mentioned that his son, now at University of California at Berkley, had worked with the University of Alaska group mentioned above. Ron will be leaving for a 2 month trip to Zimbabwe in mid January.
- 11. We have a field trip scheduled for tomorrow at the Tesla Museum in Colorado Springs, 2220 Bijou Avenue at 1:30 pm.
- 12. Next meeting: Friday, December 9, 1994 at 11:30 am in Conference Room B at St. Anthony Hospital Central.

Happy Thanksgiving.

Respectfully submitted, *M-C*

Michael Cherington, MD
Chairman, LDC