

## **The Historical Committee Presents.....**

### **History of Neurosurgery and Neurology in Jacksonville James G. Lyerly, Jr., M.D.**

I was asked to write about the history of Neurology and Neurosurgery in Jacksonville. For many years these two specialties were inseparable. This analysis ends in 1980 when I retired.

Dr. Ralph Greene, Sr., who came to Jacksonville in 1920 was seeing much of the neurology in this area. Dr. Greene had been superintendent of the Florida State Hospital in Chattahoochee from 1914 until he entered the service in World War I, where he became interested in aviation. While in Jacksonville, he flew his plane over the state to see serious neurology or brain tumor cases, sometimes flying a proved brain tumor patient to Baltimore after doing a ventriculogram.

Dr. Walter Dandy, the famous Johns Hopkins neurosurgeon, referred to Dr. Greene as “one of the most talented neurologists in the U.S.”. He was named medical director of Eastern Airlines in 1926 and in 1935 moved to Coral Gables where he established the first Civil Aviation Medical Laboratory.

Dr. James G. Lyerly, Sr. came to Jacksonville in 1934 as the first neurosurgeon in Florida. He had practiced in Richmond, Virginia for 13 years as a junior partner to one of the original neurosurgeons. In 1934, the only neurosurgeons in the South were in Richmond, Atlanta, New Orleans, Memphis and Louisville.

Dr. William Harry McCullagh came in 1936 as a neuropsychiatrist and for many years practiced both neurology and psychiatry. He had the first EEG machine in town, building it himself.

In 1940, Dr. Lyerly brought in Dr. Tracey Haverfield as an associate. After going into the service from 1942 to 1945, Dr. Haverfield decided to locate in Miami, and opened the second neurosurgical office in Florida.

Dr. Karl Pribram was associated with Dr. Lyerly from 1946 to 1948. Dr. Lyerly had done pioneering work in psychosurgery, or prefrontal lobotomy in the 30's and 40's, and Dr. Pribram started doing experimental surgery at the Yerkes Monkey Laboratory in Orange Park. He moved to Yale, in neurophysiology research, and later became Professor of Experimental Psychiatry at Stanford University.

Dr. Lyerly established a board approved one year neurosurgical residency program at St. Vincent's Hospital in 1947 that continued until the fractional training programs were stopped. Drs. Vernon Grizzard and Edward Sullivan started training under this program and later returned in association with Dr. Lyerly.

Dr. C. Ashley Bird started an independent practice in 1950. In 1956 when Dr. Howard Chandler opened an office and Dr. James Lyerly, Jr., came with his father, the nearest out of town neurosurgeons were in Orlando, New Orleans and Atlanta.

This meant that a large patient population was from out-of-town, many being indigent. We had to spread these patients out among the private hospitals and County Hospital with no prospects of payment to them or us. We used County Hospital (now Shands Medical Center) a lot, even with patients from distant counties. There was no state or federal funding at that time. Dr. Lyerly estimated that one third of the work was outright charity and the second third was part pay. Each neurosurgeon in town would cover the County Hospital and outpatient clinic for one month at a time. This would take more than half his time, even with the help of an assistant surgical resident. This continued until Dr. Arnold Zeal came to Duval Medical Center in 1977 on a full time basis, later followed by Dr. Alfonso Bremer in 1979.

The decision making range was great in those years. Neurosurgeons routinely determined where to hospitalize, when to discharge, and how to take care of a terminal illness or quadriplegic at home. There were no social workers. All of the hospitals helped, with St. Vincent's at the top of Dr. Lyerly's list.

Neurological diseases were a big part of the office, hospital and outpatient clinic practice. This ranged from polio to epilepsy and meningitis. The true neurologists, Drs. Robert Hudgins and Jacob Green did not arrive until 1968.

In 1958, Dr. Lyerly sponsored the formation of the Florida Neurosurgical Society with 30 members, including 6 from Jacksonville. This society included all the practicing neurosurgeons in Florida and for many years this friendly group had semi-annual discussions of problems of practice. Later, some neurosurgeons going to smaller hospitals did not seek this cooperation or guidance.

Occasionally, the Jacksonville neurosurgeons had to do emergency cranial or spinal surgery in other cities, from southern Georgia to west Florida, and we had to take the necessary equipment. Dr. Lyerly took everything from portable cautery unit to a headrest that attached to the operating table. Even the Jacksonville hospitals did not have the money to buy equipment and instruments for a rare specialty surgeon, and we had an office cabinet full of surgical instruments.

In the beginning, Dr. Lyerly wrote that most hospitals required an M.D. surgical assistant. This changed by 1950, and for the next 30 years we had an assistant, usually a fellow neurosurgeon, for only the most dangerous cases. A good nurse assistant was adequate or even preferred most of the time.

A major improvement came in the area of surgical anesthesia when M.D. anesthesiologists came, first to St. Lukes and Riverside Hospitals. Prior to that, we were as concerned about the anesthesia as the surgery in most cases. Then came the technicians to operate and maintain the endotracheal ventilator.

Physical therapy or rehabilitation centers and specialists were rare. Sunland, for children, and Chattahoochee, for adults, were used a lot for mental disability, no matter what the cause.

Probably the biggest advance was in neuroradiology. Surgery for herniated discs started in 1935, but no safe contrast myelography material was available until 1946 and even though most discs and spinal tumors could be localized by exam and exploration, many conditions were unable to be diagnosed without myelogram. The spinal and brain air studies were difficult and sometimes dangerous. Later the CAT scan replaced most of these. Arteriograms were crude even in the 1960's. Open carotid exposure was frequently needed. Catheters and safer dyes came later. To do a serial arteriogram, we had to pull and place the cassette by hand. St. Vincent's Hospital got the first automatic cassette changer and they also obtained the first CAT scanner. I do not know why some neurosurgeons did not get in trouble from radiation exposure and holding babies heads for pneumoencephalograms and cassettes for special views. We always did our own neuroradiology.

Some surgical procedures came and went, such as prefrontal lobotomy for depression and sympathectomy for hypertension. Some procedures moved to other specialties, such as sympathectomies for vascular problems or pain and endarterectomy for carotid obstruction. Certain operations improved greatly. Dr. Lyerly made aneurysm clamps from strips of metal after aneurysm exposure when most surgeons were ligating the artery in the neck. Aneurysm clips and better hydrocephalus shunts came slowly. The operating microscope came in the late 1960's.

During the late 1960's and 70's, out-of-town neurosurgery stopped as all cities obtained a neurosurgeon. Jacksonville added Dr. Calvin Hudson in 1967, Dr. Thomas Boulter in 1969, Dr. Gaston Acosta-Rua in 1971, Dr. J. Scott Boggs in 1974 and Dr. John Hawkins in 1979.

Pressures for unwarranted testing and treatment were increasing, both from inside and outside the profession. Neurosurgical malpractice insurance (\$100,000/300,000) rose from \$194/year in 1964 to almost \$10,000/year in 1980, with the big rise to come later.

These changes were very frustrating to the older Jacksonville neurosurgeons, who once had unique status in the practice of medicine in Florida.