

From Henry's Desk.....

Polio Treatment Then and Now

There was a time in the early 1940's when the treatment of polio was controversial. There has never been a cure for polio, and treatment prior to 1940 was generally bed rest and immobilization of extremities to prevent contractures and deformities. Then, along came an Australian nurse names Sister Elizabeth Kenny. She had seen polio early in her life among the aborigines of Australia. She had served as a nurse in the Australian military in WWI. She had her own ideas about polio that resulted in considerable criticism directed toward her by the medical establishment of Australia, Great Britain, and the USA. Her treatment methods did receive greater acceptance in the USA, but particularly at the University of Minnesota.

News articles in the Richmond newspapers in 1942 presented both sides of the controversy. Sister Kenny believed that muscle spasms in the acute stage of the disease were the most damaging occurrence in the early disease process. She recommended the application of hot, moist wool-packs to these affected muscles and passive motion exercises to maintain a "mental connection" with the muscles. In 1942, Dr. Joseph Moldaver of the Columbia University College of Physicians and Surgeons reported in the Journal of the American Medical Association that two of Sister Kenny's concepts were incorrect, namely, that the muscles spasms were not the most damaging aspect of polio and that there was no loss of muscle function due to a loss of association with the patient's mind.

In addition, at a meeting of the American Public Health Association in 1942, Sister Kenny's theories were criticized on a more scientific basis by Dr. H.R. Carrell, a St. Louis orthopedic surgeon. He stated, "The scientific evidence is that the wasting paralysis does not originate in the muscles, but in destruction of nerves in the spinal cord." He said, "Any treatment directed at the muscles themselves is only tinkering with a secondary trouble. The muscles will remain paralyzed regardless of treatment if the spinal nerves are destroyed. I am certain that the one hope of eradicating the disease and its crippling aftereffects lies in immunizing people." With the last statement Dr. Carrell was quite prophetic and accurate.

Among those defending Sister Kenny in 1942 were Doctors R. Plato, Schwartz, and Harry D. Bouman of the University of Rochester School of Medicine and Dentistry. By making 500 graphic records, these doctors proved that muscle spasms occurred among muscles affected by polio and was an integral part of the damaging process.

Sister Kenny also defended herself in a 1942 news article. She quoted Dr. Frank Krusen, professor of physical therapy at the Mayo Clinic in Rochester as saying, "Her ideas are original, and she should be given full credit for having developed a new and extremely interesting concept of the symptoms of early poliomyelitis and the proper management of these symptoms." Sister Kenny also reported her own results in which she claimed that 800 out of 1000 patients recovered almost to normal.

Who really knows the effectiveness of her treatment methods? Despite her scientific inaccuracies, there are countless polio survivors who will, to this day, attest to the effectiveness of her methods. Eventually Sister Kenny's treatment methods for acute polio were used nationally and internationally. She died before the development of the Salk vaccine, but for many polio victims, Sister Kenny's name symbolized hope.

As polio survivors with Post-Polio Syndrome (PPS), I do not believe we have a modern-day Sister Kenny to provide hopeful treatment. Fortunately, there are a growing number of physicians and allied health professionals who are interested in PPS. However, often there is no uniformity of treatment for PPS or there might be controversy, especially in regard to exercise. I am among those who believe that most of us get adequate exercise with the activities of daily living.

When I reflect on the treatment of PPS, it really does not differ that much from the treatment of polio. That treatment was bed rest, Kenny hot packs, and range of motion exercises. Of course, many polio victims had to rely on braces, crutches and wheelchairs after a program of vigorous and painful physical therapy and rehabilitation. The generous application of rest, staying warm, and maintaining as much range of motion as possible seems to be helpful and practical treatments for PPS. Maybe PPS is nothing more than polio growing old, and a Sister Kenny type of hope is our best ally.

Reference

Richmond Newspapers archives, 1942.

(This is a repeat of a very informative article and deserves a second reading.)