

FROM

The Post-Polio Institute

and

The International Centre for Post-Polio Education and Research

Englewood Hospital and Medical Center

Englewood, New Jersey U.S.A. 07631

Phone: (201) 894-3724 Toll Free: 1-877-POST-POLIO

Fax: (201) 541-6491

PPSENG@AOL.COM

Archives of Physical Medicine and Rehabilitation, 1995; 76: 594.

Bruno RL, Frick NM. Parasympathetic Abnormalities as Post-Polio Sequelae: Vagus Caveat.

Damage to both the sympathetic and parasympathetic nervous systems result from poliovirus infection. However, damage to the parasympathetic nervous system as a cause of new symptoms in polio survivors has been overlooked. The cause and management of parasympathetic abnormalities in polio survivors that can cause symptoms that are discomforting and may even be life-threatening will be presented.

It is well known that the poliovirus damaged the autonomic nervous system. Cardiovascular collapse, even without respiratory failure, was a frequent cause of death in acute bulbar polio. Recently, attention has focused on the cold intolerance reported by 50% of polio survivors and their cold, purple "polio feet" caused by partial sympathetic denervation of smooth muscle around peripheral veins. Damage to the parasympathetic nervous system as a cause of Post-Polio Sequelae has been overlooked. Presented are data from a national survey of polio survivors showing an incidence of diarrhea (9.1%) and constipation (15.5%) and diagnoses of ulcer disease (13.3%) and colitis (10.1%) that were between three and six times higher than in the general population. Also presented are cases of acute G.I. problems - paralytic ileus and diarrhea with nausea that precipitated syncope and asystole - in polio survivors. A possible relationship between G.I. problems and poliovirus-induced damage to the anterior hypothalamus and brain stem vasomotor control centers will be described. Clinical caveats in the management of polio survivors with symptoms indicative of decreased or increased vagal tone will be discussed.

Dr. Richard L. Bruno is chairperson of the International Post-Polio Task Force and director of The Post-Polio Institute and The International Centre for Post-Polio Education and Research at Englewood (New Jersey) Hospital and Medical Center.