



Frederick M. Maynard, MD

Ask Dr. Maynard

Send your questions for Dr. Maynard to info@post-polio.org.

See other questions at www.post-polio.org/edu/askdrmay.html.

Question: *In cervical spondylotic myelopathy there may be muscle weakness in lower limbs and gait disturbance, so it may be confused with a post-polio syndrome in a person who has had polio. Is there some information regarding the prevalence of this pathology in elderly patients who have had polio and how to diagnose correctly and not attribute the new weakness to the evolution of post-polio syndrome? I would be grateful if you can tell me if there is any information in this regard reflected in the surveys of people with post-polio syndrome.*

Answer: Regarding the question about incidence and diagnosis of cervical spondylotic myelopathy (CSM) in people with a past history of polio (polio survivors), I am unaware of any survey information or population reports of incidence of these two conditions occurring co-morbidly. Nevertheless, I can confidently assure you, based on my personal experience and my frequent networking with other physicians who see many polio survivors, that they do occur occasionally in the same person. After all, CSM is a common problem among aging populations, especially those with joint and spine problems; and polio survivors, whose average age now in the US is in the early 70s, have many joint and spine problems related to their long existing residual muscle weakness after paralytic polio.

I am glad you asked about how to best diagnose these conditions since it is often not easy. CSM is a diagnosis based on cervical spine imaging and clinical exam evidence of cervical spinal cord dysfunction (myelopathy). The most common symptoms are upper extremity weakness, particularly of the hand muscles, as well as ataxic gait, hyperactive reflexes of the lower limbs with pathologic reflexes, proprioceptive loss in the lower limbs, urinary incontinence and neck pain. Many of these symptoms can also be seen in polio survivors with post-polio syndrome (PPS), especially new upper or lower extremity weakness and worsening gait (if they are walkers), but one would not expect to see lower limb hyperactive reflexes, proprioceptive sensory loss or urinary symptoms. The most important test to assess the relative contribution to primary distressing symptoms from each diagnosis may be electrodiagnostic studies performed by a physician who also examines the patient carefully. In addition to ruling out confounding peripheral neuropathies, the EMG should show confirmatory typical changes of chronic motor neuron loss in the newly weakening muscles. Additionally, one can assess the patterns of motor unit recruitment in the lower limbs for abnormalities that may be more or less typical of upper or lower motor neuron dysfunction. Unfortunately, there are no electrodiagnostic abnormalities that are completely definitive for either diagnosis.

Given the relatively high risk of complications from cervical laminectomy in older individuals, the unpredictability of symptom improvement after surgery and the unpredictability of the natural history of progression of symptoms in people with CSM, one should be quite cautious about recommending cervical decompressive surgery in a polio survivor, particularly those with sufficient evidence for a diagnosis of PPS to account for most symptoms. “Aggressive” non-surgical management of the CSM diagnosis and of the functional losses associated with PPS should be recommended first.

I hope these thoughts prove helpful to you if you are a health care provider. If you are a polio survivor with these diagnoses being considered, you may wish to share my response with the physicians you are seeing. ■

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