



A Polio Survivors' Choice: Winter in Norway or on a Tropical Island?

A Bruno Byte

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Question. Dr. Bruno, you were the first to explain "polio feet" and why cold makes PPS symptoms worse. You have written about medical tax deductions for polio survivors. I can't spend another winter in Michigan! Can I deduct the cost of a trip to Hawaii or even moving there?

Answer: It may warm your cold polio feet on a blustery February day to know that the answer may be "yes" for those in the frigid US. Norwegian researchers published a study of 88 subjects diagnosed with "post-polio syndrome" (Strumse, et al. Disability and Rehabilitation, 2003; 25:77-84). Twenty-nine were said to be untreated "control" subjects, even though most had "one or two physiotherapy and/or swimming sessions" each week. Fifty-nine subjects received PPS treatment for four weeks, although the specifics of the treatment program were not spelled out. Treatment was said to be "adapted" for polio survivors from the "ordinary" rehab programs provided to non-polio survivors: "Most subjects attended daily treatment in the swimming pool and physiotherapy," classes in "relaxation techniques, self-training and gymnastics." What was done in the pool, in PT and the definitions of "self-training and gymnastics" were not provided.

And maybe it doesn't matter that we have little idea of what therapy was actually provided these polio survivors. Maybe all that matters is *where* the therapy was given. Thirty of the subjects were treated in Tenerife, that dry and sunny Spanish isle off the coast of Africa where the average daytime temperature was 77 degrees. Twenty-nine unlucky polio survivors were treated in their native Norway, where the daytime temperature hovers below freezing.

What a difference 45 degrees made! All subjects reported moderate pain and depression and moderate to severe fatigue before the study. The Tenerife subjects said that they "felt softer" in their muscles and joints and were more mobile and active. Pain decreased 59% in the Tenerife subjects but was reduced by only 28% in those shivering in Norway. Fatigue dropped 16% in the subjects treated on Tenerife, but actually increased by 2% in those freezing in Norway. Depression was reduced by 65% on Tenerife but only by 40% in those left behind in Norway. The authors concluded that it was "a rather positive surprise" that polio survivors treated on Tenerife felt better, and that it is important in winter "to take into account the positive psychosocial effects of some days off in warmer surroundings, using summer clothes, spending time together with fellow men and participating in the social life." I don't think it was the "adapted" rehab program that made polio survivors feel better, but rather the warm, sun-soaked island, time together with fellow men (and women) and a few piña colodas that did the trick.

But, more interesting than the author's surprise at the salutary effects of a month in a tropical paradise on polio survivors is what happened three months after the Tenerife subjects returned home. Pain and fatigue were still decreased, if only by 28% and 13%, respectively, and depression was still reduced by the full 65%. But, pain and fatigue three months after treatment in those who remained in Norway actually increased by 2% and 5%, respectively, while depression edged upward to a 30% reduction. Three months after the therapy groups completed treatment, the "control" subjects (who, you'll remember, did have some unspecified "therapy" in Norway but were not in the

"adapted" rehab program) had an 18% decrease in pain but a 40% reduction in depression, that is they actually felt better than those who were treated in Norway.

Ok, so this is a crummy study that shouldn't have been published. We have no idea what therapy was given to the PPS patients and the so-called "control" subjects were actually receiving treatment. But what is clear is that spending a month in a warm climate during the dead of winter significantly reduced pain, fatigue and depression in polio survivors. What does this have to do with the IRS? Your accountant may be able to use this study to justify taking a trip to warmer climes in winter as a medical deduction because it's a treatment for PPS. You may even be able to write off a move to a warmer state as part of PPS treatment since moving to find a new job is already a tax deduction.

But, until April 15th comes around, warm your state of mind: Fill a hot water bottle, make a piña colada, close your eyes and think "palm trees, palm trees..."

The Encyclopedia of Polio and Post-Polio Sequelae

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