

Post-exertional Symptomology In Chronic Fatigue Syndrome

Stiles, Travis L.; Snell, Christopher R.; Stevens, Staci R.; Moran, Megan; VanNess, J. Mark (CFS Medicine & Science in Sports & Exercise: Volume 39(5) Supplement, May 2007, p S445

Symptom exacerbation following physical stress has been documented in illnesses such as multiple sclerosis (MS), lupus and rheumatoid arthritis (RA). Similar phenomenology has been reported in CFS but is not well understood.

PURPOSE:

The purpose of this study was to explore symptom exacerbation following an exercise challenge in CFS patients relative to a sedentary control population.

METHODS:

Forty female subjects (n=40), 20 CFS and 20 matched sedentary controls served as subjects.

All participants underwent a graded maximal cardiopulmonary exercise test (CPX).

Two questionnaires, Short Form-36 (SF-36) and a series of open-ended questions, were completed 7 days after the exercise challenge to assess post-exertional differences between groups.

The open-ended questions pertained to symptoms experienced following the test and time taken to recover from any testing effects.

SF-36 data were analyzed using a multivariate analysis.

Written questionnaire responses were evaluated by determining recovery time in days as well as number and type of symptoms experienced.

RESULTS:

SF-36 analysis found statistical significance across all 8 health domains measured between groups ($p < .01$), but no effects were found for the exercise test.

Analysis of the open-ended questionnaires revealed that within 24 hours of the exercise challenge, 85% of controls indicated full recovery in contrast to 0% of CFS patients.

The remaining 15% of controls recovered within 48 hours of the test as opposed to only one CFS patient.

Clear differences in number and type of reported symptoms were also found between groups.

CONCLUSIONS:

The results of this study indicate that CFS patients suffer symptom exacerbation following physical stress. As with MS, lupus and RA, post-exertional symptom exacerbation appears to be both a real and incapacitating feature of the syndrome. The delayed recovery response evoked by a single bout of exercise stress is distinctly different from that of sedentary controls.