THERAPEUTIC HORSEBACK RIDING IN BREAST CANCER SURVIVORS

Objective: Evaluate the physiological and psychological benefits of therapeutic horseback riding in breast cancer survivors. Although there is currently no scientific evidence about this approach, horseback riding could be a good combination of psychological therapy and physical activity.

Design and methods: 20 patients, (aged 45,61±2,71) with therapeutic treatment concluded at least six month previously, underwent a screening protocol to certify their eligibility to non competitive sports. The subjects were then randomly assigned to either horseback riding group (RG) or to control group (CG). RG participated in a 4 month training program consisting of two hours of activity per week. Each activity session consisted of three phases: 1.warm up, horse caring and grooming, 2.riding  3. unsaddling and grooming activity. In order to evaluate the exercise effect on cardiopulmonary function and body composition, all patients were tested for VO2max and Body Impedance Analyse. Body Mass Index (BMI) was assessed too. The strength of principal muscular groups was measured by Shoulder Press (SP), Vertical Traction (VT), Leg Press (LP), Leg Curl (LC) and Leg Extension (LE). Furthermore, the psychological screening consisted of POMS, FACIT-F. Data were collected twice, at the beginning and at the end of the training program. A mixed between-within subjects analysis of variance was conducted for each variable of the study with time (i.e. pre-post) as within factor and groups (i.e. training and control) as between factor. Data were presented as mean values and standard deviations and statistical significance was set at an alpha level of p≤ 0.05. When significant results were obtained for interaction effect, follow-up tests were conducted splitting the sample in the two subgroups (i.e. training and control) and running separate repeated measures ANOVAs to explore the effect of time.

Results: After intervention RG group showed significant improvement in: VO2max, strength in both upper and lower arms, BMI and FAT; POMS total score and FACIT-F total score showed significant increase too. Data from CG were unchanged, except BMI that was significantly increased. These preliminary results suggest that horseback riding has positive effects either on psychological well-being or on physiological parameters, enhancing quality of life of breast cancer survivors.

Conclusions: The results of this study could generate new evidence for the effect of therapeutic horseback riding on these patients and propose a new way of rehabilitation after cancer in a non-medical environment.