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SEDENTARY/ MYOFASCIAL PAIN SYNDROME/  
TRIGGER POINT

KANOKPORN OONEKLABH: COMPARATIVE STUDY OF PRESSURE PAIN THRESHOLD AT UPPER BACK REGION BETWEEN SEDENTARY WOMEN AGED 35-54 YEARS WITH MYOFASCIAL PAIN SYNDROME AND NORMAL WOMEN. THESIS ADVISORS: AMNUAY UNNANUNTANA, M.D., KANYA PALAVIVATANA, M.Sc. (PHYSIOLOGY), ARUNEE VAJRAPORNTIP, M.Ed. (STATISTICS). 109 p. ISBN 974-661-960-8

The purpose of this study was to determine pressure pain threshold at upper back region in sedentary women aged 35-54 years with body weight in the standard range for Thai women. Subjects were divided into 30 normal women and 41 women with myofascial pain syndrome. This study compared pressure pain threshold between these two groups and also compared pressure pain thresholds of the four studied points on the same side in normal women. The four studied points were at the insertion of levator scapulae, rhomboid minor, rhomboid major and at the mid portion of upper trapezius muscles. In women with myofascial pain syndrome also had active trigger points at the same sites identical to the four studied points. Pressure pain thresholds were measured by using the myometer working like a pressure gauge with tip area of 1 cm<sup>2</sup>. The pressing velocity rate of 0.5 kg/sec was used. Pressure pain thresholds of 30 normal women were measured from both sides. Meanwhile, pressure pain thresholds in women with myofascial pain syndrome were measured from trigger points of each subject who had one or more trigger points on left or right or both sides.

Means of pressure pain threshold in women with myofascial pain syndrome were calculated from pressure pain thresholds at the trigger points on the left and the right sides. Thus pressure pain thresholds on left and right sides in normal women were selected by using simple random sampling technique to have number of replications (n) equal to those of women with myofascial pain syndrome in each point. The results show that mean±standard error of the mean of pressure pain thresholds in normal women at the insertion of levator scapulae (n=37), rhomboid minor (n=44), rhomboid major (n=37) and the mid portion of upper trapezius muscles (n=54) are 2.33±0.09, 2.26±0.11, 2.44±0.15 and 1.89±0.08 kg/cm<sup>2</sup> respectively. Pressure pain thresholds in women with myofascial pain syndrome are 1.91±0.14, 1.96±0.10, 1.72±0.10 and 1.62±0.07 kg/cm<sup>2</sup>, at the four points, respectively. Pressure pain thresholds in normal women are higher than those in women with myofascial pain syndrome (p<0.05). Pressure pain threshold in normal women at the mid portion of upper trapezius muscle is significantly lower than at the other muscles (p<0.05). There are no significant differences in pressure pain thresholds among the other three studied muscles (p>0.05).

This study shows that pressure pain threshold can be used as one of the quantitative signs in sedentary women with myofascial pain syndrome. Therefore, pressure pain threshold can help therapists to locate the site of trigger points that should be treated and can also be used to evaluate the result of treatment.