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High intensity focused electromagnetic energy on core muscle and pelvic floor control for female elderly with urinary incontinence

Abstract:

Background: Postural control dysfunction is exhibited in people with urinary incontinence, attributing to the weakness, delayed activation and impaired postural function of the pelvic floor muscles. High intensity focused electromagnetic energy has been newly developed as an alternative to the conventional exercise approach in urinary incontinence management. The aim of this study is to investigate the effectiveness of high intensity focused electromagnetic energy in managing urinary incontinence among female elderly.

Methodology: Sixteen female elderly (aged 85.9 ± 8.7 years) with urinary incontinence participated in this study. Participants received high focused electromagnetic energy two 30-minutes sessions per week for 8 weeks. Anterolateral abdominal myofascial and pelvic floor morphology was assessed with ultrasonography.

Results: There were a significant increase in inter-recti distance in the elderly with urinary incontinence as compared to the elderly without urinary incontinence during breathing in (0.35 ± 0.21 and 0.19 ± 0.90 cm respectively, $p=0.01$) and breathing out (0.30 ± 0.13 and 0.19 ± 0.15 cm respectively, $p=0.02$) phases. Significant decrease in inter-recti distance in breathing in (from 0.35 ± 0.21 to 0.24 ± 0.08 cm, $p=0.03$) and breathing out (from 0.30 ± 0.13 to 0.22 ± 0.74 cm, $p=0.01$) phases was found in elderly with urinary incontinence after high focused electromagnetic energy. Pelvic floor ascending phases was also improved (from 0.44 ± 0.56 to 0.57 ± 0.16 cm) although that was not statistically significant ($p=0.31$)

Conclusion: The findings supported that 8 weeks high focused electromagnetic energy might be effective in improving core muscle and pelvic floor control.

Keywords: urinary incontinence, abdominal, pelvic floor, women

Biography: Choi Yee is a final year undergraduate student majoring in Physiotherapy at Tung Wah College, Hong Kong. Her interests include improving women's health and empowering women living