Postpartum Pelvic Floor Muscle Strength Measurement - Effects of 12-week Exercise -

Objective: This study aimed to evaluate the effects of 12-week postpartum exercise in females 1 month after delivery.

DESIGN: A longitudinal intervention study.

Methods: Puerperas 1 month after delivery (excluding premature delivery, Caesarean section, and macrosomia) were randomized into intervention (16) and non-intervention (16) groups. The former performed 3-minute pelvic floor-strengthening exercise three times a day, and the maximum pelvic floor contraction force was measured using a device (Furun Medical Co., Ltd.) and compared between the 2 groups before and 6 and 12 weeks after the initiation of intervention. The obtained data were analyzed using SPSS 21.0J. Time-dependent changes were examined by performing repeated-measures one-way analysis of variance and multiple comparisons using the Tukey method and compared between the groups by performing Student's t-test (significance level: 5% on both sides). This study was conducted with the approval of the Ethics Committee of Shiga University of Medical Science.

Results: The mean maximum contraction force (kg/f, ±SD) before and 12 weeks after the initiation of intervention were 0.92(±0.5) and 1.94(±0.99), respectively, in the intervention group, and 0.82(±0.61) and 1.26(±0.55), respectively, in the non-intervention group; a marked increase was observed throughout the study period in both groups (p=0.000 and p=0.003, respectively), and the value after 12 weeks was significantly higher in the former (p=0.000). The value increased by 1.02(±0.94) in the intervention group and 0.44(±0.68) in the non-intervention group after 12 weeks; the increase was more marked in the former (p=0.013).

Conclusion: The maximum pelvic floor contraction force markedly increase for 6 weeks with and without pelvic floor-strengthening exercise, but the force becomes greater and the increase becomes more marked with it after 12 weeks.