Objective: To examine the ultrasound diagnostic criteria for diastasis recti and investigate the correlation between diastasis recti and pelvic floor dysfunction in postpartum females.

Methods: Inter-rectus distance (IRD) was measured at three locations (at the umbilical level, 3 cm above the umbilicus and 3 cm below the umbilicus) in 116 healthy nulliparous females and 108 postpartum females while they remained relaxed and performed a head-lift posture. The 90th percentile was used to define a normal IRD. Overall, 108 postpartum females underwent ultrasonographic examination of pelvic floor functions with evaluation of the hiatal area of the levator ani muscle and the degree of pelvic organ prolapse.

Results: We established ultrasonographic diagnostic criteria for diastasis recti as follows: IRD > 2 mm at 3 cm below the umbilicus, > 20 mm at the umbilicus, and > 14 mm at 3 cm above the umbilicus.

The mean IRD values with pelvic floor dysfunction scores of 0, 1, 2, 3, 4, and 5 were 29.7±10.3 mm, 27.5±9.2 mm, 28.7±11.7 mm, 33.0±7.7 mm, 29.3±7.14 mm, and 27.0±10.5 mm, respectively. No correlation was noted between the IRD and the hiatal area of the levator ani.

Conclusion
The nonlinear correlation between IRD and pelvic floor dysfunction may represent a dynamic balance of abdominal-pelvic biomechanics.