

Magnetic Resonance Assessment of Pelvic Anatomy and Pelvic Floor Disorder Symptoms after Childbirth.”

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Purpose: To compare pelvic anatomy parameters of women with or without pelvic floor symptoms after first childbirth using magnetic resonance imaging (MRI).

Methods: After informed consent, 246 primiparas were evaluated with 1.5T MRI 6-12 months postpartum by readers with standardized training. Static and dynamic T2-weighted images of the pelvis were performed at rest and during strain. Osseous and soft tissue pelvic dimensions were compared between women with and without pelvic organ prolapse (POP), urinary incontinence (UI) or fecal incontinence (FI), which was determined by validated questionnaires and physical examination. Analysis of variance was calculated. $P < 0.01$ was considered statistically significant.

Results: Deep sacral hollow was associated with fecal incontinence ($p=0.005$). Wide intertuberos diameter ($p=0.017$) and angle of the pelvic arch ($p=0.017$) were marginally associated with urinary incontinence. There were no significant differences in MRI measurements between women with and without prolapse beyond the hymen. There were no significant differences in soft tissue measurements between women with and without symptoms of UI, FI or POP.

Conclusion: In primiparous women, pelvic MRI parameters do not differ substantially in women with respect to postpartum prolapse, urinary incontinence, or fecal incontinence symptoms.

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