Accurate differentiation of dyssynergic defecation patients from normal subjects based on abnormal anorectal angle in MR defecography

We aimed to study the differences between the dynamic indices of the pelvic floor, i.e. anorectal angle and perineal descent, in dyssynergic defecation patients in comparison with healthy controls, based on MR Defecography. 22 constipated patients with dyssynergic defecation and 14 healthy asymptomatic subjects were included in the study. 4 MR Defecography dynamic indices, including paradox (abnormal anorectal angle change), perineal descent during straining, perineal ascent and narrowing of anorectal angle at squeeze were measured in patients and healthy subjects. Paradox index had the highest sensitivity (95.45%) and specificity (92.86%) for detection of dyssynergic defecation, with an R2 value of near 1 (0.902). The sensitivity and specificity of other indices were not high; therefore, no significant improvement could be achieved using other indices along with paradox index. Negative predictive value (92.85%) and Positive predictive value (95.45%) were only high in paradox index. Paradox index was indicated to be the best finding of MR Defecography for identifying dyssynergic defecation patients from healthy controls. Hence, MR Defecography could be exploited as a reliable tool to show the patients the paradoxical function of their pelvic floor muscles, which could enhance their imagination of the correct defecation pattern during their therapy.

Biography

Afsaneh Nikjooy, PhD, is an Assistant Professor of Physical Therapy in Department of Physical Therapy, Iran University of Medical Sciences, Tehran, Iran. She is a member of International Continence Society as well as the Iranian Continence Society. She has worked in pelvic floor physiotherapy for more than 12 years and has managed several courses of pelvic floor physiotherapy for Master’s students in this field in the Faculty of Rehabilitation, Iran University of Medical Sciences.

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