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What are the differences between neurophysiologic indices of pelvic floor in patients with dyssynergic defecation versus healthy persons, based on fMRI findings?

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Dyssynergic Defecation (DD), one of the most common functional defecation disorders, has been recognized as a major cause of chronic functional constipation. The etiology of DD is unclear, this abnormal muscle activity may be due to; Brain-bowel axis dysfunction, an acquired behavioral defecation disorder, the coordinated mechanisms of defecation may have never been learnt during childhood, and may be a result of sexual or physical or emotional abuse. Patients with DD, exhibit significant psychological distress and impaired health-related quality of life (QOL). It is necessary to understand the neurophysiologic indices of this dysfunction to make a proper clinical decision for achieving a better treatment plan to improve the patients' QOL. This study can be the foundation of the next researches to provide the new method for investigating neural rehabilitation and better understanding of the mechanisms of improving motor functions and also be a good background, for later studies to compare the effects of intervention therapy (Biofeedback and cognition behavioral therapy). 20 constipated patients with DD and nine healthy asymptomatic were included in the study. The participants were studied using fMRI to detect brain activity during voluntary contraction of puborectalis and external anal sphincter muscles, as well as during straining to defecation and rest. External sensory events, eliciting strong emotional reactions, can alter the function of the alimentary canal and lead to common disorders of gastrointestinal function and defecation. fMRI study findings showed active regions of the brain during the tasks. Also fMRI could reveal the differences between the patients and healthy controls.

Biography

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

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