

Current and emerging imaging techniques to evaluate bowel dysfunctions in patients with Multiple Sclerosis: a review

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Multiple Sclerosis (MS) is the most common chronic disease of central nervous system (CNS). MS patients may present with a wide variety of neurologic symptoms, including fatigue, sensory and motor disturbances, depression, cognitive disorders, bladder, bowel and sexual dysfunctions (1). Pelvic floor disorders are often overlooked symptoms in patients with MS (2). With respect to the general population, constipation and/or faecal incontinence are more frequent in MS, with an estimated prevalence ranging from 52% to 68% (3). The neuro-pathophysiological mechanism of bowel dysfunction in MS remains unclear. Several factors act in concert to maintain fecal continence; among the anatomical factors the anal sphincter is crucial, interplaying with rectum and pelvic floor muscles to control defecation. In recent decades, technological advances in diagnostic imaging have dramatically improved our knowledge favouring the assessment of anatomical and functional deficits in patients with bowel dysfunctions. We conducted a review to provide an overview on the relevance of current and emerging imaging techniques to study morphologic and functional abnormalities of anorectal region and pelvic floor of MS patients. Multimodal imaging techniques are frequently used: both static and dynamic imaging provide new insights into the complexity of global pelvic floor dysfunctions. The defecography seems to be the gold standard examination for the identification of morphological and functional disorders of the recto-anal region and pelvic floor (4). Although MRI defecography provide more accuracy in morphologic and functional assessment and allows to avoid radiation exposure, defecography is a cost-effective procedure, simple to perform, and widely available in every hospital equipped with a fluoroscopy room.

References

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Keywords

Multiple Sclerosis; bowel dysfunction; pelvic floor disorders; imaging techniques.