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healthcare

Management of constipation in Parkinson's disease

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Introduction: Constipation is a frequent non-motor feature of Parkinson's disease (PD). It is the most common gastrointestinal symptom of the disease and it can precede motor symptoms by as much as 20 years. Constipation can produce discomfort and affect activities of daily living, productivity and quality of life, thus warranting early diagnosis and treatment.

Areas covered: In this review, the safety and efficacy of traditional and novel strategies for constipation management will be discussed. A treatment algorithm for constipation in PD will be presented.

Expert opinion: Polyethylene glycol and lubiprostone are first-line compounds recommended by evidence-based medicine guidelines for the treatment of constipation due to slow colonic transit in PD. Management of constipation secondary to defecatory dysfunction due to pelvic floor dyssynergia can be done by levodopa or apomorphine injections, botulinum toxin type A injection into the puborectalis muscle, and nonpharmacological interventions, like biofeedback therapy or functional magnetic stimulation, which showed some benefit in PD patients with constipation, but in general more extensive studies are warranted.

Keywords: algorithm, constipation, gastrointestinal, lubiprostone, Parkinson's disease, polyethylene glycol

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1. Introduction

Parkinson's disease (PD) is the second most frequent neurodegenerative disorder following Alzheimer's disease and involves dopaminergic and non-dopaminergic systems [1]. It is a progressive disease that leads to serious consequences on the function and quality of life of patients and their caregivers [2]. It is mainly recognized by its cardinal motor signs: bradykinesia, rigidity, rest tremor and postural instability, although other secondary motor features, such as hypomimia, dysarthria, dysphagia, micrographia, shuffling gait, festination, freezing and dystonia, are also common [3]. Non-motor symptoms are common during all stages of the disease, and frequently go under-recognized [4]. In many cases they develop before the onset of the cardinal motor features, which has been defined as the prodromal or premotor phase of PD and estimated to precede for about 5 - 20 years [5-7].

Gastrointestinal dysfunction is probably the most frequent non-motor feature of PD [8]. It was early identified and described in the monograph "An Essay on the Shaking Palsy," by James Parkinson in 1817 [9]. All parts of the gastrointestinal tract can potentially be compromised, producing for example, sialorrhea, dysphagia, gastroparesis, constipation and defecation disturbances, which may lead in many cases to weight loss and erratic absorption of drugs [10]. Constipation is the most common gastrointestinal disturbance in PD, with a prevalence lower than traditionally assumed (up to 60 - 70%), being currently estimated between 20 and 29% [11-13]. Epidemiological studies have shown that constipation can precede motor symptoms