

Microscopic colitis related to food supplement containing turmeric: a review of 3 cases

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Abstract

Microscopic colitis is a chronic inflammatory disorder of the colon characterized by microscopic changes in the intestinal lining. Turmeric, a commonly used spice, is generally regarded as beneficial for digestive and articular health thanks to its anti-inflammatory properties. No cases of microscopic colitis under a food supplement containing turmeric has been previously described in the literature.

This article highlights 3 cases where the consumption of a specific turmeric-based supplement caused microscopic colitis. Each of them complained about profuse watery diarrhea shortly after initiating the food supplement containing turmeric. Ileo-colonoscopies with biopsies confirmed the diagnosis of microscopic colitis, with two cases classified as lymphocytic colitis and the third as collagenous colitis. Following the discontinuation of the supplement, all patients experienced a resolution of their symptoms within a few days. Subsequent control biopsies for the three patients confirmed the resolution of microscopic colitis. (*Acta gastroenterol. belg.*, 2024, 87, 34-36).

Keywords: Turmeric, food supplement, lymphocytic colitis, collagenous colitis.

Introduction

Microscopic colitis encompasses lymphocytic colitis and collagenous colitis both characterized by chronic watery and non-bloody-diarrhea (1). The diagnosis relies on staged biopsies with distinct histological features: an increased number of CD3+ and CD8+ intraepithelial lymphocytes exceeding 20 per 100 epithelial cells in lymphocytic colitis or a collagen band greater than 10 micrometers in the subepithelial layer in collagenous colitis (2). Various risk factors contribute to the development of microscopic colitis including advanced age, female sex, tobacco use, autoimmune disorders and certain medications. The main implicated medications are proton-pump inhibitors, non-steroidal anti-inflammatory drugs, selective serotonin reuptake inhibitors, low-dose aspirin, acarbose and ticlopidine (1,3). The initial management strategy involves discontinuation of the suspected causative medication (3). If symptoms persist despite medication cessation, the recommended treatment is budesonide, which has demonstrated efficacy in both induction and remission maintenance.

Given the anti-inflammatory properties attributed to turmeric and its favorable effects on colitis, particularly in ulcerative colitis (4,5), it was unexpected that a food supplement containing turmeric could potentially be

implicated as a causative factor in the development of microscopic colitis.

As for our patients, all three had recently started treatment with Curcudyn Forte, a dietary supplement containing five main ingredients including turmeric. This food supplement appears to have a potentially harmful effect on the digestive tract leading to the development of microscopic colitis, as indicated by our cases. Although none of the individual components can be clearly identified as the causative agent, the presence of turmeric raises questions regarding its role in this adverse outcome.

Cases history

Case 1

A 71-year-old male with a history of joint pain initiated a food supplement containing turmeric four months ago. Subsequently, he experienced post-prandial profuse watery diarrhea persisting for six weeks, accompanied by a weight loss of 4 kilograms and a decline in overall well-being. He did not observe any mucus or blood in his stools but the result of the hemocult test was positive. He did not consume other medications concurrently.

An ileo-colonoscopy was performed, revealing no visible lesions throughout the colon tract. Staged biopsies were obtained during the procedure. In anticipation of the biopsies results, the food supplement was discontinued. After two weeks, the biopsies results confirmed a diagnosis of lymphocytic colitis with a notable presence of 90 CD8+ lymphocytes per 100 epithelial cells.

Upon discontinuation, the patient experienced rapid relief from digestive symptoms with complete resolution occurring within two days. The symptoms did not recur over a six-month follow-up period. Subsequent biopsies, conducted six-month after the discontinuation of the food supplement, confirmed the complete resolution of lymphocytic colitis.

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Case 2

A 74-year-old female presented with a complaint of progressive watery diarrhea without blood or mucus for 4 months. She did not experience weight loss and was in a good overall health. She had been regularly consuming the same food supplement containing turmeric for 4 months and the rest of her treatment consisted of omeprazole, acetylsalicylic acid, amitriptyline, clonazepam, simvastatin which she had taken for a long time without experiencing side effects.

An ileo-colonoscopy was performed, accompanied by staged biopsies. No macroscopic lesions were observed. However, the biopsies confirmed a diagnosis of lymphocytic colitis, with 61 CD8+ lymphocytes per 100 epithelial cells.

On the advice of the gastroenterologist, the patient discontinued her use of the food supplement while maintaining her other medications, resulting in the cessation of the diarrhea within 48 hours.

Subsequent control biopsies conducted 2 months after the discontinuation revealed the complete disappearance of lymphocyte infiltration.

Case 3

A 62-year-old female suffered from watery diarrhea for the past four months, without the presence of mucus or blood. She did not notice any deterioration in her general state of health and did not experience any weight loss. Her treatment included metformin, duloxetine, l-thyroxine, esomeprazole, rosuvastatin, estradiol, a food supplement containing turmeric, gamma-aminobutyric acid and paracetamol suppositories. She started the food supplement a few weeks before the diarrhea.

There were no macroscopic lesions at the ileo-colonoscopy and the staged biopsies revealed a positive diagnosis of collagenous colitis, with a colonic sub-epithelial collagen band measuring 50 to 100 μm in thickness.

Upon discontinuation of the food supplement, her diarrhea resolved within a few days and there have been no recurrent symptoms since. A follow-up colonoscopy with additional biopsies was performed 2 months after the discontinuation of the treatment and confirmed the resolution of collagenous colitis.

Discussion

Curcudyn Forte is a dietary supplement designed to alleviate joint and muscle pain while promoting cartilage protection. It consists of five main ingredients: turmeric root extracts (*Curcuma Longa L.*), Boswellia extract, Ginger root extracts, Vitamin D, and Vitamin C. Additionally, Fenugreek galactomannans, Dicalcium phosphate, Hydroxypropylmethylcellulose, Rice extract, Microcrystalline cellulose, Iron oxide, Tricalcium phosphate, and Sunflower seed oil are also constituents.

Turmeric and Boswellia extracts are well-known for their anti-inflammatory properties, potentially beneficial in managing colitis. Studies, including a systematic literature review from 2017 (6;7), suggest potential benefits compared to a placebo for ulcerative colitis and irritable bowel syndrome, although the evidence level is insufficient. The literature suggests that the other major components present in Curcudyn Forte also demonstrate potential gastroenterological benefits. For example, ginger improves gut microbiota diversity (8). Vitamin D may reduce the incidence of polyps and adenomas in the colon of patients with inflammatory bowel disease (IBD) (9). Curcudyn Forte helps address deficiencies in vitamins C and D, common in colitis patients (10).

Remaining ingredients like Fenugreek galactomannans have antioxidant properties and potential in reducing ulcerative colitis severity (11). Sunflower seed oil has antioxidant and anti-histaminic properties (12). Hydroxypropylmethylcellulose and microcrystalline cellulose are commonly used in colon-targeted drug delivery systems (13).

While excessive phosphate and iron intake is associated with potential negative effects on colitis and IBD (14), the low amounts in Curcudyn Forte are unlikely to cause significant harm.

Based on the available information, the ingredients of Curcudyn Forte are generally associated with beneficial effects and there have been no reported cases of microscopic colitis linked to the use of Curcudyn Forte or its individual component.

We couldn't find any article linking a food supplement containing turmeric to microscopic colitis but it should be noted that diarrhea is a potential side effect of the use of turmeric (15).

These 3 cases strongly suggest a causal relationship between the use of the food supplement containing turmeric and the development of microscopic colitis. The prompt improvement and absence of symptom recurrence following the discontinuation of the supplement further support this association.

The limitation is our inability to ascertain whether the responsibility lies with a specific component, the combination of several components, or with the dietary supplement as a whole.

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