

Important Association Between Diarrhea Dominant Irritable Bowel Syndrome and Aphthous Ulcer - An Interesting Case Report

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Abstract

The aphthous ulcer has been well established in inflammatory bowel disease but not in irritable bowel syndrome. In this research article, I have highlighted the important association between diarrhea dominant irritable bowel syndrome and aphthous ulcer and also hypothesized various mechanisms related to the pathogenesis of diarrhea dominant irritable bowel syndrome based on my personal experience.

Keywords: Oral Ulcer; Diarrhea; IBS; Probiotic

Introduction and Discussion

I did MBBS and MD (Clinical pharmacology). I belong to South India. I have been afflicted with irritable bowel syndrome from childhood. It runs in my family as reported having a genetic link [1]. Most of the years, I stayed in the hostel and did not develop any symptoms because of consuming vegetable foods only. When I returned to my hometown and started taking goat meat (mutton) and other heavy meals, I developed abdominal pain and diarrhea. This was my scenario until I completed MBBS. Physicians used to give ofloxacin and metronidazole. It never helped. Only the curd (dahi), which I used to take during that event helped me in relieving diarrhea. Since the curd contains probiotics [2], I started researching probiotics and its effect on diarrhea. When I chose MD pharmacology in Aligarh, I learnt details of irritable bowel syndrome. All the symptoms suited me. I realised that the entire year I was suffering from irritable bowel syndrome when I took heavy meals. From there onwards I started taking loperamide for diarrhea dominant irritable bowel syndrome [3]. It reduced my GI motility. I was very much comfortable. Since I wanted to know about probiotics after some days, I saw a lot of research articles related to probiotics in irritable bowel syndrome [4,5]. It was mind-blowing but only limited research had been done. In our medical shop, enterogermina (*Bacillus clausii*) was easily available [6]. So, when I started taking it during diarrheal dominant irritable bowel syndrome, it cured my entire symptoms and relieved my abdominal pain and diarrhea with just one tablet. I felt like a gift from heaven completely satisfied. Definitely, it is a magic drug. Thereafter, I started avoiding loperamide and continued taking enterogermina. The following are my hypotheses.

Hypothesis 1:

1. A positive correlation between diarrhea dominant irritable bowel syndrome and bacterial flora alteration which may be the primary pathophysiology.

- 2. Positive impact on healing diarrhea dominant irritable bowel syndrome by replenishing with the *Bacillus clausii*.

Whenever I had diarrhea dominant irritable bowel syndrome, I also used to develop an aphthous ulcer. The aphthous ulcer has been well established in inflammatory bowel disease [7] but not in irritable bowel syndrome. Folic acid is produced by bacterial microflora by *denovo* synthesis [8], when they are disturbed by irritant drugs, foods, or toxins, the end-organ deficiency (the term coined by Vogel) occurs in oral gingival tissues [9]. This end-organ deficiency occurs even when the serum folic acid is normal [9].

Hypothesis 2:

- 1. A positive correlation between diarrhea dominant irritable bowel syndrome and aphthous ulcer development.
- 2. A positive correlation between bacterial microflora alteration and aphthous ulcer.
- 3. A positive correlation between bacterial microflora and gingival tissues intactness.

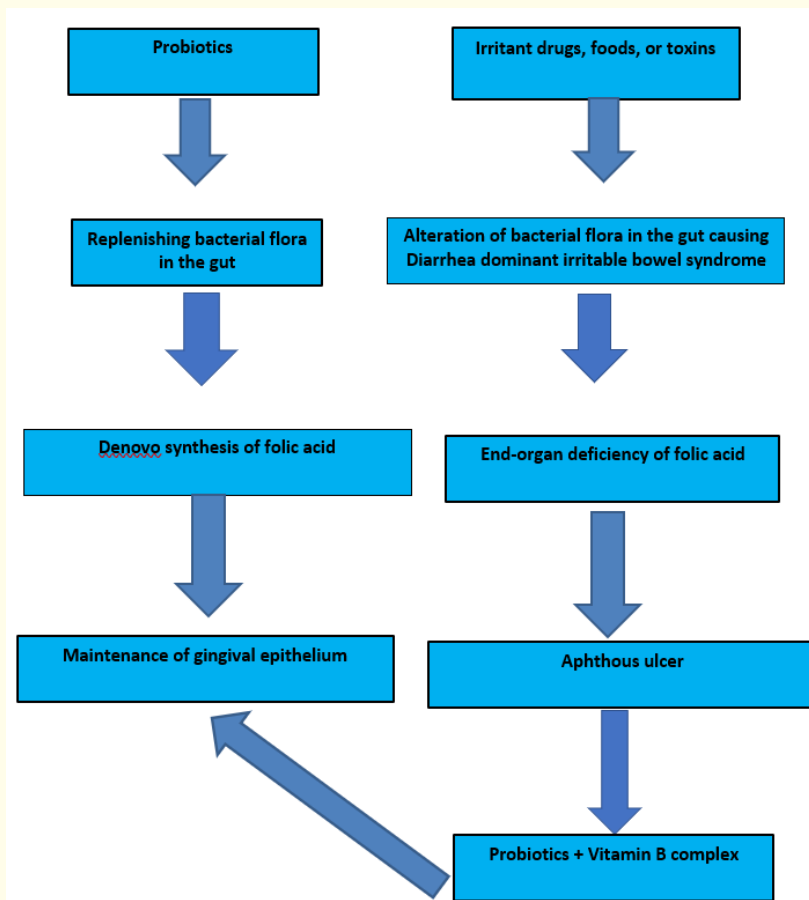


Figure 1: Important association between diarrhea dominant irritable bowel syndrome and aphthous ulcer.

Conclusion

Pharmacological advice to physicians based on my experience: For mild diarrhea dominant irritable bowel syndrome instead of giving recent drugs like rifaximin, eluxadoline, etc [10], start with *Bacillus clausii* and vitamin B complex as the first drug. Probiotics to replace the bacterial flora and vitamin B complex to maintain gingival epithelium [11-13]. If not relieved go for higher therapy like loperamide, rifaximin.

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