



Irritable Bowel Syndrome or Psychiatric Disorders: Which Comes First?

Hong Sub Lee

Department of Internal Medicine, Inje University Busan Paik Hospital, Busan, Korea

Article: Risk factors for self-reported irritable bowel syndrome with prior psychiatric disorder: the lifelines cohort study
Creed F
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Patients with irritable bowel syndrome (IBS) frequently display psychological disorders involving depression and anxiety.¹ Furthermore, sleep disturbances and stress may also be associated with a greater risk of IBS development.^{2,3} Previous studies have suggested a positive link between psychophysiological stress levels and IBS incidence although the etiology of IBS remains unknown.⁴⁻⁷ Psychological factors can influence pain perception. One plausible explanation is that changes in visceral hypersensitivity or unknown peripheral mechanisms may cause disturbance in the gastrointestinal motor and sensory systems.⁸ Thus, it is important to identify patients with mental disease because the early application of psychological therapy or the action of central neuromodulators could help improve IBS symptoms.^{9,10}

In this issue of the *Journal of Neurogastroenterology and Motility*, Creed¹¹ reported a prospective, sizable population-based study that assessed new predictors of IBS. Approximately 1% of participants reported new-onset IBS after a 2.4-year follow-up. There was a prior psychiatric disorder in 27% of this subgroup. According to the authors, prior psychiatric disorders may be a potential risk factor for IBS incidence. This study has the advantage of covering most of the recognized risk factors for IBS in a single large sample cohort. Earlier research has suggested that having

severe anxiety but not depression at baseline was a significant independent predictor of new-onset functional gastrointestinal disorder (FGID) development 12 years later.¹² A limitation of this study is the impossibility to confirm whether a psychiatric disease has occurred in the group of patients with previous confirmed IBS.

Would it be intestinal symptoms or psychiatric distress that comes first? That is to say, could psychosocial factors induce IBS or could psychological symptoms arise as a result of IBS? Clinical population studies have reported a link between IBS and mental problems in 38-100% of cases.¹³ Koloski et al¹⁴ have suggested that mood disorders preceded FGID in one-third of patients, whereas FGID preceded mood disorders in two-thirds. Although IBS is being recognized as a somatoform and somatic symptom condition, approximately half of all patients with IBS exhibit gastrointestinal symptoms with no mental comorbidities.¹⁵ While studies support a two-way brain-to-gut interaction, the hypothesis of a separate gut-to-brain syndrome, which may necessitate a different treatment strategy, is still debated.

Which biological mechanisms may explain the link between IBS and psychological disorders? First, an increased prevalence of psychiatric disorders has been previously reported among relatives of patients with IBS.¹⁶ Simultaneously, a genome-wide solid

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*Correspondence: Hong Sub Lee, MD, PhD

Department of Internal Medicine, Inje University Busan Paik Hospital, 75 Bokji-ro, Busanjin-gu, Busan 47392, Korea
Tel: +82-51-890-6989, Fax: +82-51-892-0273, E-mail: hslee@paik.ac.kr

correlation between the risk of IBS and anxiety, ill feelings, and depression has also been identified.¹⁷ Neuroimaging psychological distress may trigger a change in the brain's processing of incoming sensory information, resulting in IBS.¹⁸ In addition, the relevance of the microbiome as a possible link between IBS and psychological disorders is gaining ground.¹⁹ Finally, the lifelines cohort used in this study also began collecting fecal samples to investigate the impact of the microbiota.²⁰ Such studies will be required in the future to explain the microbiome-brain-gut axis, which contributes to the two-way communication between the gut, its microbiome, and the nervous system.

In summary, mental disorders are a potential risk factor for IBS incidence. Although IBS develops sequentially following psychological distress, the mental elements of the condition have received little attention. Identifying the pathophysiological mechanism between psychological distress and IBS could provide clinical benefits for patients with IBS, bringing them one step closer to therapy.

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