

Epidemiology of Irritable Bowel Syndrome in Children and Adolescents in Asia

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ABSTRACT

Objectives Several cross-sectional surveys have been conducted to study the prevalence of irritable bowel syndrome (IBS) in children. The aim of the present study was to conduct a systematic review and a meta-analysis of published literature to estimate the prevalence of IBS among Asian children. **Method** A computer-assisted search of MEDLINE, EMBASE, PsycINFO, and regional databases of Asia was carried out. Selected articles were reviewed in depth and data were extracted. Pooled prevalence, sex differences, and 95% confidence intervals were calculated. Heterogeneity of the studies was assessed using the I² test.

Results A total of 16 cross-sectional studies that reported prevalence of IBS (in children and adolescents) and qualified to be included were taken into the final analysis containing 38,076 patients. Selected studies are from China, Korea, Japan, Iran, Sri Lanka, and Saudi Arabia. Studies showed a marked heterogeneity with I² of 8.5 (P < 0.0001). Prevalence of IBS ranges from 2.8% to 25.7%, with a pooled prevalence of 12.41% (95% confidence interval 8.7-14.5). Prevalence ratio of girls is 1.1. Prevalence of subtypes is diverse and varies between studies.

Conclusions The published data indicate that IBS is a significant problem among Asian children and adolescents. Female sex predisposes children and adolescents to develop IBS.

Key Words epidemiology, functional gastrointestinal disorder, irritable bowel syndrome, prevalence, subtypes

(JPN 2015;607278)

Irritable bowel syndrome (IBS) in children is characterized by chronic abdominal pain and changing bowel habits including frequency of defecation and stool consistency in the absence of organic disease (1). It is a common problem in paediatric practice, and according to office-based practice, between 21% and 45% children with chronic abdominal pain have IBS (24).

This malady could lead to reduction in quality of life and a poor quality of schoolwork (5,6). In addition, it is a well-known fact

received August 1, 2014; accepted January 1, 2015.

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The authors report no conflicts of interest.

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110.1077/MP.0000000000000714

What Is Known

- Irritable bowel syndrome (IBS) is a common functional gastrointestinal disorder.
- Its prevalence in children varies from 2% to 24% around the world.
- Most information regarding this condition is from the Western world.

What Is New

- The present study highlights the burden of paediatric IBS in Asia.
- Prevalence in Asian children varies from 2.8% to 25.7%, with a pooled prevalence of 12.4%.
- Asian girls have a higher tendency toward developing IBS than boys.

that a sizeable proportion of children experiencing pain-predominant functional gastrointestinal diseases (Fgs), including IBS, grow up to be adults with similar problems (7). With the limited number of therapeutic options available, paediatricians and paediatric gastroenterologists face a daunting task to manage these children.

Initial epidemiological studies from Western countries have shown that 15% of school children in the United States, 14% to 24% in Russia, and 2% in the United Kingdom are experiencing IBS, perhaps promulgating the notion that IBS is a disease of the Western world (8,10). A new wave of epidemiological research has emerged in Asia and increased the depth and breadth of knowledge on IBS in this region. Despite these efforts, there remain difficulties to differentiate the true regional and global nature of IBS, and its epidemiological facts and predisposing factors, details that are crucial for practising clinicians.

Asia is the home for >50% of the world's childhood population. In addition, most of Asian countries are going through a rapid change in socioeconomic status and their cultural foundations are constantly being challenged by globalization. Thus, we believe that studying epidemiological patterns of IBS in Asian children in a systematic way will provide a greater perspective for understanding the burden of IBS, its epidemiological distribution, and patterns of subtypes.

METHODS

Literature Search Strategy

A detailed literature search was carried out (from 148 to October 2014) using MEDLINE, PsycINFO, EMBASE, Global