



ELSEVIER

Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Best Practice & Research Clinical Gastroenterology



1

Epidemiology of inflammatory bowel disease: Focus on Asia



Siew C. Ng, MRCP, PhD, Assistant Professor*

Institute of Digestive Disease, Department of Medicine and Therapeutics, Chinese University Hong Kong, Hong Kong

A B S T R A C T

Keywords:

Inflammatory bowel disease
Epidemiology
Incidence
Genetics
Ethnic
Asia

The epidemiology of inflammatory bowel disease (IBD) is changing globally. Incidence and prevalence may have stabilized in high-incidence areas such as North America and Europe but they continue to rise in previously low-incidence areas such as Eastern Europe, Asia, and much of the developing world. This epidemiological shift likely relates to westernization of lifestyle, changes in diet, and improved hygiene as part of socioeconomic development in developing countries. In Asia, UC is more prevalent than CD, although the UC:CD ratio is narrowing in certain areas. Clinical manifestations of IBD in Asia resemble the Western population, but with some differences, including higher prevalence of males and ileo-colonic CD, less familial clustering, lower surgical rates and extra-intestinal manifestations. These differences may relate to time, genetics and environmental factors. Studying the epidemiology of IBD in an area of rapidly increasing incidence may lead to discovery of important etiologic factors associated with disease development.

© 2014 Published by Elsevier Ltd.

Background

Crohn's disease (CD) and Ulcerative colitis (UC) are chronic inflammatory bowel diseases (IBD) of unknown aetiology. The pathogenesis of inflammatory bowel disease (IBD) relates to a dysregulated immune response to antigenic stimulation from intestinal microbiota on a background of genetic susceptibility [1]. Traditionally, the highest occurrence of both UC and CD has been reported in Western

* Tel.: +852 2632 3845; fax: +852 2637 3852.

E-mail address: siewchiennng@cuhk.edu.hk.

countries including North America, Europe, United Kingdom and Scandinavia, whilst the disease remains less common in Eastern Europe or much of the developing world [2]. However, during the past two decades the epidemiology of IBD has changed in many ways. Incidence rates of traditionally high incidence areas such as Western Europe has remained relatively stable or even decreasing [2], while diseases have become more prevalent in previously low incidence areas, such as Asia and Eastern Europe [3–6]. In these ‘new’ IBD countries, UC has emerged first followed by CD after a variable period of time. Such phenomenon mirrored what took place in the West decades ago when the disease first appeared. The cause for this epidemiologic shift remains unclear. Although increased disease awareness and improved diagnostic tools may play a role, this change is most likely secondary to the influence of lifestyle, environmental and genetic factors [7]. Genetic susceptibility has been reported to be different in Asian compared with Western IBD patients [8]. Overall the burden of IBD varies in different countries and populations and variations in disease incidence may reflect differences in distribution or magnitude of the impact of environmental etiologic factors within specific populations. The changing epidemiology IBD worldwide provides an opportunity to study disease aetiology.

Incidence

The incidence rates of CD and UC vary worldwide between 0.1 and 16 per 100,000 inhabitants and 0.5 to 24.5 per 100,000 inhabitants, respectively [2,9]. IBD is more common in the Northern than the Southern part of the world, and it is more common among Caucasian compared with non-caucasian populations. The incidence of IBD is highest in westernized nations, with the highest reported incidence rates in North America [2,9–12], Northern Europe [13], the United Kingdom [14] and Australia [15].

In countries that are becoming more westernized, including Eastern Europe, Asia, French West Indies, and North Africa, IBD is emerging. A recent population-based inception cohort across 31 European centres reported a West–East gradient in disease incidence. The highest incidence in the world was reported in the Faroe Islands (81.5 per 100 000). Overall annual incidence rates for CD and UC in all Western European centres were approximately twice as high as those in Eastern European centres [4]. The east-west gradient in Europe may be either a real phenomenon or the result of evolving health care systems and case ascertainment in eastern European countries although the reasons behind these regional differences are not completely clear.

Traditionally considered an area of low incidence, Asia is also witnessing a rise in incidence in parallel with rapid socioeconomic development [16–19]. Previous challenges of conducting epidemiologic studies in Asia include difficulty in defining catchment areas and the lack of uniform criteria for case ascertainment. In a recent large scale population-based study across eight countries in Asia, it has been shown that the incidence rate of IBD ranged from 0.54 to 3.44 per 100,000 individuals. Within Asia, the incidence of IBD was highest in Guangzhou (mainland China), followed by Hong Kong, and Macau [5]. One may speculate that these countries are highly urbanized. In Hong Kong, data from a hospital cohort demonstrated an increased incidence of CD and UC from 0.4 to 1.0, and from 0.8 to 1.2, respectively, between 1990 and 2001 [20]. In India, a community-based study reported a relatively high incidence of UC of 6.0 per 100,000 people [21]. Japan is the only country in Asia with a nationwide IBD registry run by the Ministry of Health and Welfare. The incidence of UC in Japan has increased from 0.02 to 1.95 per 100,000 person-years between 1961 and 1991 [22,23], whereas the incidence of CD has increased from 0.60 to 1.20 between 1986 and 1998 [24]. Currently it has been estimated that over 100,000 patients are suffering from UC in Japan [24]. In Korea, two population-based studies have demonstrated a rise in incidence for both CD (0.05–5.1) and UC (0.34–5.4) from 1986 to 2008 [25,26]. Even within Asia incidence rates of IBD vary according to geography and ethnic groups. The highest rates have been reported in India particularly for UC, Japan and the Middle East, whereas overall rising trends of IBD are seen in East Asia. Rates of IBD also appear to be higher in urban than in rural communities. Apart from geographic differences, ethnic differences have been described in multi-racial countries including Malaysia and Singapore whereby Indians appeared to be more susceptible to IBD than Chinese and native Malays within the same country [27–29]. These differences may reflect differences in genetic susceptibility, living conditions and/or dietary habits [30]. In Africa and Central and South America, epidemiologic data remain scarce or are not available.

Download English Version:

<https://daneshyari.com/en/article/6086347>

Download Persian Version:

<https://daneshyari.com/article/6086347>

[Daneshyari.com](https://daneshyari.com)