The study by Bai et al (1) reported a gender-related and city-country-side-related differences of patients with ulcerative colitis (UC) in Jiangxi Province, east-Chinese population. It’s a significant research work. Research on the etiology and the pathogenesis of inflammatory bowel disease (IBD) have shown that IBD is related to altered immunological function, resulting from an abnormal interplay between genetic susceptibility and environmental factors. Therefore, this study will enhance our knowledge about the relationship between IBD incidence and different populations in the world.

Inflammatory bowel disease, including Crohn’s disease (CD) and UC, is very common in developed countries, while it is relatively uncommon in Asian countries. However, the incidence of IBD has been increasing in some Asian countries in recent years. In China, it had been uncommon until about 1990, but since then, it has been more frequently seen in the clinical setting. It is reported to be increasing in incidence and prevalence in provinces and cities in mainland China. The prevalence and phenotype of IBD in the Chinese population is not well known. Numerous studies have reported basic and clinical results on IBD research (2-5). Genetic research on the single nucleotide polymorphism (SNPs) distribution of NOD2/CARD15 (R702W, G908R), OCTN1 1672C/T and OCTN2-207 G/C has shown that although OCTN or CARD15 variation is associated with susceptibility to IBD in Western populations, these might be rare and may not be associated with susceptibility to IBD in Chinese patients (6). Further, ATG16 L1 gene single nucleotide polymorphism (SNP) site, rs2241880 associated with Crohn’s disease susceptibility identified in foreign populations does not seem to be identical with that in the Chinese population (7). Another study reported that the Fas gene promoter polymorphism at position-670 (Fas-670) polymorphism is not associated with IBD in Chinese patients (8). On the other hand, other studies have reported that macrophage migration inhibitory factor (MIF)-173 CC genotype (9) and tumor necrosis factor (TNF)-308A polymorphisms (10) may be associated with susceptibility to UC in the Chinese Han population. These results thus indicated the genetic difference between Western and Chinese populations.

Regarding Clinical manifestations of inflammatory bowel disease, there are also some differences between Chinese and Western populations. In China there are fewer fistulae and perianal diseases, and extraintestinal manifestations of CD are uncommon. In China, 5.6% of patients with UC have a family history, which is lower than the 10-20% in developed countries (11). Compared to patients in Western countries, more mild to moderate and left-sided colitis cases were observed in a nation-wide study in China (12). Regarding the research in partial area of China, the investigation from central China showed that the prevalence of IBD has increased in central China, but it is not as high as in Western countries. The disease has often been associated with young adult professional males with a high level of education. The clinical presentation of UC was often mild and had few extra intestinal manifestations (13). In eastern China, the research result shows similar characteristics of IBD to that in the West but there are some differences with respect to severity and extraintestinal manifestations (14). Further, a study from the Nanchang area, in eastern China, reported gender-related and city-country-side-related differences of the expression of ulcerative colitis in the Chinese population. Lifestyle factors such as psychological stress and fatigue, may contribute to the expression of ulcerative colitis (1). These results thus indicated that there are some different clinic manifestations of IBD between Western and Chinese population.

In summary, the etiology and the pathogenesis of IBD are still not well known. It is believed that altered immunological function, resulting from an abnormal interplay between genetic susceptibility and environmental factors, plays a significant role in the mucosal inflammation of the intestinal tract (15). In recent years, the effect of environmental fac-
tors on the predisposition of IBD has been emphasized. For example, studies on migrant populations suggest that shifted morbidity of migrants is more related to lifestyle and environmental factors than genetic differences (16, 17).

China is a developing country with a large population and a vast territory, made up of 56 territories. The Chinese population shows quite different genetic characteristics and lifestyle in different tribes and in different areas; environmental factors are also quite different. Therefore, in addition to the different etiology, pathogenesis and clinic characteristics of IBD compared to the Western population, they also show difference in these other factors. Thus, in the study of IBS in China it is very important for us to understand the different etiology and pathogenesis in the different ethnic populations and areas. A further population-based epidemiological study is also necessary to determine the prevalence and incidence rates of IBD in China.

References


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