EDITORIAL

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Regional variations in the prevalence of primary sclerosing cholangitis associated with inflammatory bowel disease

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Article: Low prevalence of primary sclerosing cholangitis in patients with inflammatory bowel disease in India **(Intest Res 2023;21:452-459)**

Ulcerative colitis (UC) and Crohn's disease (CD) are types of inflammatory bowel disease (IBD), characterized as chronic, relapsing bowel disorder causing a significant impact on the personal health.[1,2] Many studies have reported various mechanisms in genetic, immunologic, microbial, environmental fields and experimental models for IBD have suggested essential components in the pathogenesis.[3] One of the pathologic characteristics of IBD is presenting various extraintestinal manifestations.[4] Primary sclerosing cholangitis (PSC) is a chronic, biliary tract disease which causes progressive inflammation in the bile duct, resulting in obstruction and dilatation. The annual incidence of PSC in Western countries is 0.5–1.3 per 100,000 people. The prevalence of PSC in Asian countries is approximately 0.095–0.13 per 10,000 people.[5] In most Asian countries including China and India, rising incidence of IBD might bring a greater burden[6] which could make the IBD-related complications such as PSC more important than before.

Since there has been limited data about IBD-related PSC from India, Singh et al.[7] published descriptive study about the prevalence and disease spectrum of PSC with IBD in India. They conducted the retrospective study at 5 medical centers in India from 1991 to 2020. A total of 12,216 patients with IBD were analyzed, in which 48 patients (0.39%) had PSC. Among them, 42 and 6 were UC and CD, respectively. The cumulative prevalence of PSC were 0.45% and 0.20% in UC and CD, respectively. Twenty-seven (56.25%) patients of PSC with IBD were males. About 70% of them were diagnosed as IBD before PSC. In patients with UC and CD, 29 (69.05%) had pancolitis and 3 (50.00%) had isolated colonic involvement, respectively. More than half of patients with PSC (n = 32, 68.75%) presented liver disease at the point of diagnosis as PSC and IBD. During the follow-up period of a median 66 months including the time of diagnosis, 8 and 5 patients presented liver cirrhosis and malignancies.

Compared to other Asian study which was conducted in Taiwan, the prevalence of PSC with IBD was 1.57% in Taiwan, which showed higher than that of this study.[5] Prevalence of PSC with IBD was presented higher in Western countries than that of Asian countries.[8] Recent systematic review and meta-analysis about the prevalence of PSC in IBD of 776,770 subjects from 30 countries worldwide showed different prevalence according to the region.[9] Moreover, the lower incidence rate of colorectal cancer compared to that of Caucasians was also presented in this study. Singh et al.[7] suggested the theory that though

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the disease phenotypes seemed to be similar, different demographics, genetics, and gut microbial composition might exist in IBD between Indians and Caucasians. Additionally, they described that shorter follow-up period and low annual colorectal cancer screening rates would contribute to the difference.

One concern is that the method of defining PSC and IBD would make the lower prevalence than real one. For example, PSC with normal biochemical results, small duct PSC would be missed. The authors mentioned that it would be small number but the reported number of PSC was also small enough to be affected by the missing. In addition, the kind of cholangiography would better be mentioned because it would also make bias.

It was meaningful study for its specific data about Indians and large sample size. It showed consistent data about the differences between Asian and Western countries. However, it also showed different epidemiology from the other Asian countries. This study could be a cornerstone for the study of PSC with IBD. More specific data about the PSC with IBD will be presented to evaluate the scientific pathophysiology of regional variation.

ADDITIONAL INFORMATION

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Conflict of Interest
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Not applicable.

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