



# How have treatment patterns for patients with inflammatory bowel disease changed in Asian countries?

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Inflammatory bowel disease (IBD) has been occurred in Western countries in the 1990s, but the prevalence of IBD is rapidly increasing in Eastern countries as well in the 2000s. Accordingly, the treatment paradigm for patients with IBD in Asian countries was established according to Western guidelines, and new biologic agents and small molecules are being introduced in Asian countries through Western approval and clinical use.<sup>1,2</sup> Previous studies in Western countries have shown the changes in prescribing patterns of IBD and consequent increases in social healthcare costs. Targownik et al.<sup>3</sup> reported that the overall health care cost increased nearly tripling from 2005 to 2015 in Canada, of which hospitalization costs remained stable, while most costs were related to direct spending on biological agents. Yu et al.<sup>4</sup> reported a consistent rise in the marker share of biologics from 2007 to 2015 in the United States.

However, the natural history of IBD itself, the epidemiology of IBD, the healthcare systems, and the drugs that can be prescribed are different between Western countries and Eastern countries. The rates of major surgery and hospitalization of patients with ulcerative colitis (UC) in Asian countries were lower than those of Western countries, suggesting milder clinical course of UC in Asian patients.<sup>5</sup> Regarding the epidemiology

of IBD, according to the 2019 Global Burden of Diseases, Injuries, and Risk Factors Study, from 1990 to 2019, age-standardized prevalence increased most rapidly in East Asia and high-income Asia-Pacific regions.<sup>6</sup> According to the healthcare costs, van Linschoten et al.<sup>7</sup> assessed the cost of illness of IBD according to each continent including Asia, Europe, North America, and Oceania from 1985 to 2018. The healthcare costs were increasing on all continents, and the cost trend is primarily attributable to an increase in medication costs.<sup>7</sup> Although costs in Asia were lower than in Europe and North America, but no studies from Asia or Oceania were eligible for this analysis at that time period.<sup>7</sup> In summary, it is essential to understand treatment patterns for IBD in Asian countries, because of rapid increase of IBD in Asia due to Westernization, changes in prescription patterns in the West over time, and unique characteristics between the East and the West.

The organizing committee of the Asian Organization for Crohn's and Colitis (AOCC) reported first web-based survey results for the current status of IBD management conducted by 353 Asian medical doctors from Korea, China, Japan, India, Hon Kong, Singapore, Taiwan, Malaysia, Philippines, and Indonesia in the 2nd annual AOCC meeting in 2014.<sup>8</sup> For mild to moderate UC and mild to moderate Crohn's disease (CD), 5-aminosalicylic acid treatment were common first line therapy in Asian countries. For steroid-refractory acute severe UC, most physicians selected anti-tumor necrosis factor (TNF) agents followed by cyclosporine, on the contrary, Japanese

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physicians favored tacrolimus followed by anti-TNF agents.<sup>8</sup> For steroid-dependent and/or refractory UC and CD, the immunomodulators and anti-TNF agents were selected first. The cytomegalovirus and *Clostridium difficile* infection were tested in patients with severe UC patients refractory to immunosuppressive therapy.<sup>8</sup> Combination therapy was favored in CD patients, especially Korean physicians, and duration of combination therapy was longest in Japanese physicians.<sup>8</sup> To monitor IBD, most physicians used clinical scores, blood tests, and colonoscopies, and few physicians used computed tomography enterography, magnetic resonance enterography, serum infliximab level, and antibody to infliximab.<sup>8</sup>

In the current issue, the second web-based survey results of the current status of IBD management conducted by 384 Asian medical doctors from 24 Asian countries in the 8th annual AOCC meeting in 2020 were reported.<sup>9</sup> The use of biologic agents in IBD patients in the AOCC survey in 2020 increased compared to the AOCC survey in 2014.<sup>9</sup> Tacrolimus was still favored by Japanese physicians for patients with severe refractory UC, but decreased from 64.8% in 2014 to 46.2% in 2020.<sup>9</sup> The Korean physicians consulted surgeons more frequently and sustained systemic steroid longer in patients with acute severe UC compared to other Asian countries.<sup>9</sup> The serum infliximab level and antibody to infliximab were frequently checked for non-responder to anti-TNF in the 2020 survey.<sup>9</sup> Also, the use of computed tomography enterography, magnetic resonance enterography, and fecal calprotectin increased in the 2020 survey compared to those of the 2014 survey.<sup>9</sup>

This article details the results of a multinational survey on the changing prescribing patterns of Asian countries in 2014 and 2020. This important survey could contribute to establish specific guidelines and policies for the improved management of IBD patients in Asian countries.

## ADDITIONAL INFORMATION

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### Conflict of Interest

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