EDITORIAL

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Patients' Preference for a Specific Anti-Tumor Necrosis Factor Agent: Korea versus Western

Hyungil Seo* and Byong Duk Ye*,†

*Department of Gastroenterology and †Inflammatory Bowel Disease Center, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea

See "Factors Contributing to the Preference of Korean Patients with Crohn's Disease When Selecting an Anti-Tumor Necrosis Factor Agent (CHOICE Study)" by Eun Soo Kim, et al. on page 391-398, Vol. 10. No. 3, 2016

The introduction of anti-tumor necrosis factor (TNF) agents for treatment of inflammatory bowel disease (IBD) has changed the treatment paradigm for both Crohn's disease (CD) and ulcerative colitis.[1,2] Currently, two anti-TNF agents, infliximab (IFX) and adalimumab (ADA), are available in clinical practice in Korea. In general, these anti-TNF agents have demonstrated similar efficacies in the induction and maintenance of clinical remission and responses in moderate to severe CD.[3] However, there are no head-to-head comparative trials available to indicate the best options among commercially available anti-TNF agents. Therefore, factors other than efficacy and safety, such as availability, route of administration, patient preference, cost and national guidance, should also be considered when choosing a specific anti-TNF agent.[4] In fact, selecting a specific anti-TNF drug is a typical preference-sensitive decision an individual patient will make in the management of their IBD. Moreover, patients' preferences for specific anti-TNF agents may vary depending on cultural factors. However, data on the preferences of CD patients, especially those in Asia, for anti-TNF agents are very limited.

In this issue of *Gut and Liver*, Kim *et al*.[5] reported the results of the CHOICE study, which investigated the preferences of Korean patients with CD for IFX and ADA and the contributing factors for their preferences. They conducted a prospective questionnaire survey of 189 patients from 10 tertiary referral centers in South Korea.[5] The authors showed that anti-TNF-naïve CD patients were more likely to favor IFX over ADA.[5]

Several studies have investigated patients' preference for routes of administration of anti-TNF agents in Western settings (Table 1).[6-10] Interestingly, the findings of Kim *et al*.[5] are

Table 1. Results of Studies on Biologic-Naïve Patients' Preference for Anti-Tumor Necrosis Factor Agents

Author	Study area	Study design	Study period	Underlying disease	No. of total patients	No. of preferring SC agents (%)	No. of preferring IV agents (%)
Kim *et al*.[5]	Korea	Hospital-based, multicenter	2014	CD	189	69 (36.5)	120 (63.5)
Vavricka *et al*.[6]	Switzerland	Hospital-based, multicenter	2008–2009	CD	100	64 (64.0)*	25 (25.0)*
Williams and Edwards[7]	United Kingdom	Hospital-based, single center	2004	RA	NA	NA (52.5)†	NA (17.5)†
Chilton and Collett[8]	United Kingdom	Hospital-based, single center	NA (2008)§	RA	109	55 (50.5)‡	25 (22.9)‡
Scarpato *et al*.[9]	Italy	Hospital-based, multicenter	NA (2010)§	RA	802	399 (49.8)	403 (50.2)
Huynh *et al*.[10]	Denmark	Hospital-based, multicenter	NA (2014)§	RA	35	27 (77.1)	8 (22.9)

SC, subcutaneous; IV, intravenous; CD, Crohn's disease; RA, rheumatoid arthritis; NA, not available.
*Eleven patients (11%) were undecided; †30.0% of patients preferred intramuscular route; ‡29 Patients (26.6%) showed no preference; §Year of study publication.

Correspondence to: Byong Duk Ye
Department of Gastroenterology and Inflammatory Bowel Disease Center, Asan Medical Center, University of Ulsan College of Medicine, 88 Olympic-ro 43-gil, Songpa-gu, Seoul 05505, Korea
Tel: +82-2-3010-3181, Fax: +82-2-476-0824, E-mail: bdye@amc.seoul.kr
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the complete opposite of the findings from a previous study of Western CD patients.[6] In the previous study, which was conducted in Switzerland, 100 anti-TNF-naïve CD patients were surveyed, and approximately two-thirds of the patients (64.0%) preferred subcutaneously delivered drugs (ADA [36.0%] or certolizumab pegol [28.0%]) over IFX (25.0%).[6] Several studies have investigated the preferences of biologic-naïve patients with rheumatoid arthritis (RA) for biologics.[7-10] In two studies from the United Kingdom and one from Denmark, RA patients preferred subcutaneous (SC) agents over intravenous (IV) agents.[7,8,10] However, the largest study of 802 anti-TNF-naïve RA patients from 50 Italian rheumatology centers (the RIVIERA study) revealed similar preferences between SC and IV routes (49.8% and 50.2%, respectively).[9] The varied preferences of study subjects cannot be directly compared between studies because different questionnaires were used. However, the reasons for the patients' preferences for routes of drug administration could help identify the contributing factors to their preferences and thereby further guide the decision-making process.

Kim *et al*.[5] showed that logistic factors regarding hospital treatment were the only independent predictive factors for choosing ADA. In the previous study conducted in Switzerland, the ease of administration of anti-TNF therapy and the time spent receiving the therapy were significantly more frequently chosen as deciding factors by CD patients who preferred SC agents in comparison to the group of patients who chose IFX.[6] For Western RA patients, the most common reasons for choosing ADA or a SC route were not needing to travel to a hospital,[8] difficulty/discomfort involved in traveling to a hospital,[9] and a desire to minimize treatment and transportation times.[10] Therefore, logistic challenges appear to be influential factors for choosing anti-TNF agents for Korean patients with CD and Western patients with RA. In contrast, in the study by Kim *et al*,[5] patients who favored IFX considered a "doctor's presence" as the most important factor when choosing between IFX and ADA. Although the study of CD patients in Switzerland did not include "doctor's presence" as a potential reason for choosing anti-TNF agents,[6] studies of Western RA patients showed that the most important factors for choosing IFX or an IV route were staff availablity[8] and the safety of receiving an infusion in the hospital.[9,10] Therefore, the reasons for selecting specific anti-TNF agents or administration routes among both CD and RA patients appear to be similar, whether the patients live in more independent Western cultures or in more interdependent Asian cultures. Understanding these behavioral patterns could help physicians guide an individual patient's selection of an appropriate anti-TNF agent based on the patient's main concerns (i.e., safety vs convenience).

To understand how a specific anti-TNF agent would be selected in a real-life setting, one more factor that should be considered is the physician's preference. In fact, physician recommendations had more influence on patients' preferences for IBD treatments (steroids, budesonide, immunomodulators, and anti-TNF drugs) than routes of administration.[6] Physician recommendations might be more important for Korean IBD patients due to their relatively interdependent Asian culture, as supported by the results of the study by Kim *et al*.[5] The profound impact of physician recommendations emphasizes the importance of physicians having an understanding of their patients' preferences and the factors that contribute to them to guide patients properly in the decision-making process.

In conclusion, the study by Kim *et al*.[5] presented the preferences of CD patients in an Asian country for specific anti-TNF agents for the first time. Although factors such as variable costs, accessibility issues, and variable medical facilities were not considered as contributing factors, Kim *et al*.'s study[5] suggests that the preference for anti-TNF agents might be heterogeneous in diverse social and cultural environments. To support patient adherence to anti-TNF therapies and improve outcomes, physicians need to understand the factors that have major influences on patients' preferences and perform shared decision-making when selecting anti-TNF agents.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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