The Role of *Helicobacter pylori* Infection in Coronavirus Disease 2019, Cause or Coincidence?

To the Editor: We have read with interest the article by Balamtekin et al (1) suggesting symptoms related to *Helicobacter pylori* (HP) infection in patients with coronavirus disease 2019 (COVID-19) that we praise for innovation.

According to the Maastricht-V Consensus Report (2), the diagnosis of HP should not be based on stool antigen tests and at least confirmed by a second test (¹³C-urea breath test) performed following a negative COVID-19 test. Moreover, the omission of eradication therapy raises an ethical concern regarding the reason for testing for HP.

Angiotensin-converting enzyme-2 (ACE-2) is expressed in cells of the gastrointestinal tract (3), and several conditions (diabetes, hypertension, obesity and autoimmune diseases) increase the expression of ACE-2 receptors independently from HP (4). The authors state to have evaluated comorbidities, but no mention is given in the results. Concerning the adult age of patients, these conditions should have been considered or patients excluded. Moreover, there was no mention of symptoms before HP or after COVID-19 infection nor a control group of COVID-19 negative patients.

The study misses a power calculation and even considering the relative prevalence of each symptom in HP positive/negative patients as correct, the study would be under-powered; at least 55 patients per arm are needed to have a power of 80% (α -error = 0.05). Finally, other factors related to HP (5) might be responsible for the increased rate of symptoms (6).

Abdominal pain and diarrhea, widespread in the pediatric population, could lead to an overestimation of the suspicion of HP infection during the COVID-19 pandemic that might further overload the health system already at collapse.

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The authors report no conflicts of interest.

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The Effect of *Helicobacter pylori* on the Presentation and Clinical Course of Coronavirus Disease 2019

Reply: We have read with interest the letter by Papagni et al (1), which includes their praise and views on our article.

In our study, we based the diagnosis of *Helicobacter pylori* on the stool antigen test because it has a high specificity-sensitivity (2) and we believe that is the safest test in terms of transmission risk under extraordinary conditions. We consider that this approach is appropriate for exceptional cases, since every diagnostic procedure to be performed while diagnosing *H pylori* infection will put healthcare workers at greater risk. Eradication treatments were applied to our patients after the coronavirus disease 2019 (COVID-19) infection process finished.

H pylori has been reported to play a role in the pathogenesis of diseases by increasing the expression of angiotensin-converting enzyme-2 receptors in the gastrointestinal tract (3). We found no difference between patients with and without comorbid disease in terms of the course of the disease and the type of symptoms. Therefore, we think that the frequency of diarrhea and abdominal pain complaints is associated with *H pylori*.

We planned our study with 31 experimental subjects and 77 control subjects. Our data indicated that the probability of abdominal pain among *H pylori* negative cases is 2.6%. When the true probability of abdominal pain among *H pylori* positive cases is 19.4%, the null hypothesis is rejected with the probability (power) 0.69. On the other hand, our data also indicated that the probability of diarrhea among *H pylori* negative cases is 9.1%. When the true probability of diarrhea among *H pylori* positive cases is 32.3%, the null hypothesis is rejected with the probability (power) 0.73. The Type I error probability associated with this test of this null hypothesis is 0.05. We used a continuity-corrected chi-squared statistic or Fisher exact test to evaluate this null hypothesis.

This study is very valuable academically because it is the first study to investigate the relationship between the world’s most common infectious disease and pandemic, and it pioneers studies in this field; however, as we mentioned in the article, there is a need for more comprehensive studies (where virulent elements of *H pylori* such as VacA can be examined one by one) in which more patients participated. Although our results show that diarrhea and abdominal pain are more common in *H pylori* positive patients during the course of COVID-19, it shows that the presence of *H pylori* does not affect the clinical outcome of COVID-19 infection. In conclusion, considering that the presence of *H pylori* does not affect the course of COVID-19, it is obvious that the presence of *H pylori* will not actually bring an additional burden to hospitals in this critical period.

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Model for Severity Prediction in Pediatric Acute Pancreatitis

To the Editor: We read with interest the report by Farrell et al (1) entitled “Who’s at Risk? A Prognostic Model for Severity Prediction in Pediatric Acute Pancreatitis”. Farrell et al show that the severity of acute pancreatitis can be predicted by blood urea nitrogen (BUN) and albumin levels at the time of admission and between 24 and 48 hours after hospitalization. In 2017, the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) Pancreas Committee published guidelines for severity classification of pediatric acute pancreatitis, and for the first time, they define mild, moderate, and severe acute pancreatitis in pediatric patients (2).

In this valuable study, which we intend to use in the future, we were unable to fully identify the inclusion criteria of patients with acute pancreatitis in the moderate-to-severe acute pancreatitis group. Although the BUN values of the patients were found to be high, the creatinine values did not increase during hospitalization. Although the mean BUN values differed significantly ($P = 0.002$) between the 2 groups, no difference was observed between the creatinine values. In addition, BUN: creatinine ratio (BCR) is a recommended tool for the diagnosis of acute kidney injury (3). BCR could be applied to define organ dysfunction in acute pancreatitis severity classification.

We believe that clarifying these points will make the model more understandable and clinically applicable.

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Transition Services for Pediatric Inflammatory Bowel Disease: Ready for Asian Patients Yet?

To the Editor: The article by Ashton et al (1) describes the current status of transition services for inflammatory bowel disease (IBD) in the United Kingdom. The authors reported that most centers began the transition process to adult care before 16 years old, and all completed the transfer by 18 years old. The patient proportion in the transition process at individual centers varied between 10% and 50%. The results of this study may be used to develop proper transition guidelines.

Although the importance of the successful transition of IBD care has been emphasized in Asian countries (2), its current status is generally unknown in this low IBD prevalence area. The IBD prevalence rate in Korea was 108.35/100,000 inhabitants (31.59, Crohn disease; 76.66, ulcerative colitis) on December 31, 2015, resulting in 55,800 patients with IBD (16,300, Crohn disease; 39,500 ulcerative colitis) (3). Among these, only ~900 patients were 16–18 years old. Thus, ~300 patients move from child-centered to adult-oriented care annually in Korea; however, most of these patients do not undergo a proper transition process from pediatric to adult IBD care because only a few hospitals in Korea have multidisciplinary IBD transition programs. In addition to the lack of resources for transition services, the ideal transition timing in Korean patients may be later than that in European patients, considering that Asian adolescents and young adults are more dependent on their parents compared with their European counterparts when making decisions (4). Therefore, developing transition programs tailored to Asian patients is needed.

The authors report no conflicts of interest.

Author Contributions: Suk-Kyun Yang: study concept, drafting of the manuscript, study supervision; Sang Hyoung Park: Critical revision of the manuscript for important intellectual content; Byong Duk Ye: Critical revision of the manuscript for important intellectual content.

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