

[LETTERS TO THE EDITOR]

The Author's Reply: Cooperation Among Gastroenterological, Pathological and Microbiological Departments Is Needed to Avoid the Misdiagnosis of Intestinal Tuberculosis as Inflammatory Bowel Disease

Key words: intestinal tuberculosis, inflammatory bowel disease, misdiagnosis

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The Authors Reply We greatly appreciate the letter to the editor submitted by Fukuchi et al. on our paper regarding the misdiagnosis of intestinal tuberculosis (ITB) as inflammatory bowel disease (IBD) (1, 2). The cooperation among clinician, pathological and microbiological departments proposed by Fukuchi et al. is significant and necessary in order to reduce the risk of misdiagnosis and improve the prognosis of ITB patients. In addition, we emphasize several other points that may help avoid a misdiagnosis below in this letter.

In the clinical practice guidelines for inflammatory bowel disease (3), bacteriological and parasitological examinations of stool are recommended in order to exclude infectious enteritis. Though it may be difficult to culture mycobacterium and perform the nucleic acid amplification test of intestinal tissue in all IBD-suspected cases because of the associated expense, they should be considered in cases with colonoscopic findings that are not typical of IBD and/or in cases of elderly patients in Japan, which has a moderate incidence of tuberculosis and many elderly TB patients. Indeed, most of the endoscopic findings of misdiagnosed patients reported in our report were not typical for IBD, and half of the patients were over 65 years old (1).

Another important point is the detailed pathological analysis of intestinal specimens, especially the pattern and size of granulomas (4). Indeed, it may be laborious for pa-

thologists to search for acid-fast bacilli in specimens with Ziehl-Neelsen staining, but it should be performed in cases with necrotizing and/or large granulomas. Of course, in order to do so, pathologists need adequate information on the clinical course and endoscopic findings from clinicians. Using nested polymerase chain reaction (PCR) assay to detect tuberculosis in formalin-fixed specimens would be useful in daily medical practice. However, we must keep in mind that both acid-fast stain and nested PCR are diagnostic tools and not drug sensitivity tests, which are necessary for tuberculous treatment.

We hope that cooperation among related departments and careful investigations with suspicion of ITB, as described in this letter, will reduce the rate of misdiagnosing ITB as IBD.

The authors state that they have no Conflict of Interest (COI).

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References

1. Sato R, Nagai H, Matsui H, et al. Ten cases of intestinal tuberculosis which were initially misdiagnosed as inflammatory bowel disease. *Intern Med* 58: 2003-2008, 2019.
2. Fukuchi T, Sugawara H. Cooperation among gastroenterological, pathological and microbiological departments is needed to avoid misdiagnosis of intestinal tuberculosis as inflammatory bowel disease. *Intern Med* 58: 3501, 2019.
3. Matsuoka K, Kobayashi T, Ueno F, et al. Evidence-based clinical practice guidelines for inflammatory bowel disease. *J Gastroenterol* 53: 305-353, 2018.
4. Shah KK, Pritt BS, Alexander MP. Histopathologic review of granulomatous inflammation. *J Clin Tuberc Other Mycobact Dis* 7: 1-12, 2017.

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