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LETTER TO THE EDITOR

Diagnostic criteria of inflammatory bowel disease

We read with great interest with the case report presented by Shehzad Sheikh et al. [1], but we are confused with the diagnosis of Crohn's disease (CD). How the diagnosis of CD was established after restorative proctocolectomy with ileal pouch–anal anastomosis (IPAA). Maybe it was just the recurrence of the ulcerative colitis (UC). The Pouchoscopy revealed deep ulcerations, stenosis in the pouch and afferent ileum, but the biopsies just revealed the presence of active inflammatory bowel disease (IBD) consisting of UC and CD. Pouch strictures after IPAA are common. Strictures may occur in over 10% of patients with IPAA for UC [2]. The positive perinuclear anti-neutrophil cytoplasmic anti-body (pANCA) just suggests IBD, and it is more prevalent in UC [3]. Hereby we discuss diagnostic criteria of IBD from Western and Asian.

Mendeloff's criteria [4], Lennard-Jones criteria [5] are widely used for IBD in Western countries. Mendeloff emphasized that a definite diagnosis of UC should be based on a clinical course of more than six weeks, rule out other disease with a combination of endoscopic, radiological and pathological features. If any one of these was dubious, the diagnosis is regarded as 'probable' only; a definite diagnosis of CD needs typical histopathological findings. In the absence of histological confirmation, the diagnosis is regarded as 'probable'. Lennard-Jones also stressed that an established diagnosis of IBD should be based on the exclusion of other disease and histological confirmation. The characteristic lesions are emphasized in these criteria for the diagnosis of CD. If granulomas are present with at least one other criterion, or the presence of three of the criteria in the absence of granulomas, the diagnosis of CD is regarded as 'definite'. If the presence of the two criteria without granuloma, the diagnosis is regarded as 'probable'.

In Japan, the diagnostic criteria of UC are almost consistent with that of Western countries. However the diagnostic criteria of IBD are formulized [6]. The characteristics of CD were generalized as the following: major findings: ① longitudinal ulcers; ② cobblestone appearance; and ③ non-caseating granuloma. Minor findings: ④ irregular-shaped ulcers or aphthoid ulcers; ⑤ irregular-shaped ulcer or aphthoid in upper and lower gastrointestinal tracts. If ① and ② are both present, or ③ is present with ④ or ⑤ and ischemic colitis has been excluded, the diagnosis of CD is regarded as 'definite', otherwise weaker items can only make it as 'probable'.

Consensus responses [7] were obtained for the formal document for IBD in Asian Pacific region in 2004, which suggested to rule out infectious colitis, ischemic colitis, NSAID enteropathy, colonic neoplasms and so on first, then adopting diagnostic criteria of modified Mendeloff and Lennard-Jones or Japanese Research Society for the diagnosis of IBD.

Following the principle of evidence based medicine, the management consensus of IBD was revised from the original criteria in China in 2007 [8]. Based on the exclusion of other disease, the diagnosis of IBD needs the combination of clinical, endoscopic and pathological findings. The definite diagnosis of IBD should include the typical histopathological findings. The typical histopathological findings in CD include: ① non-caseating granulomas; ② aphthoid ulcers; ③ a fissuring ulcer; ④ the aggregation of chronic inflammatory cells and lymphocyte aggregation in the lamina propria and submucosa; ⑤ the broadening of the submucosa layer; ⑥ the dilation of lymphatic vessels; ⑦ neurogangliitis; ⑧ the crypt structure and the number of goblet cells are almost normal. The typical pathological findings of CD should include non-caseating granulomas and another typical change, or the above three typical histopathological changes without granulomas.

The global practice guidelines was framed by World Gastroenterology Organization in 2009 [9], in which UC and CD may be diagnosed by the following criteria: (1) typical clinical manifestations can make a 'suspected' diagnosis, requiring further investigation; (2) clinical manifestations with either endoscopic or radiological examination supported, 'suggested' diagnosis could be made; (3) based on criteria (2), rule out other enterocolitis for both UC and CD; (4) criteria (3) plus typical histopathology, the diagnosis is regarded as 'definite'.

In summary, the diagnosis of IBD is based on the cooperation of a clinician, an endoscopist and a pathologist, the definite diagnosis especially in CD needs the typical histopathological findings.

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