The Incidence of Microscopic Colitis: Microscopic No More

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Microscopic colitis (MC) is a cause of chronic watery diarrhea commonly encountered in everyday practice. Although not associated with an increased risk of colon cancer, the impact of untreated MC may severely impact quality of life due to increased stool frequency, urgency, incontinence, nocturnal bowel movements, and weight loss.

It is well established that MC is associated with female gender, older age, autoimmune disease, and celiac disease [1–3]. In this month's issue of *Digestive Diseases and Sciences*, Fumery and colleagues not only describe the temporal incidence, presentation, and demographic associations of microscopic colitis in a region of France where these disease features had heretofore never been described, but also report their incidence figures in a novel fashion by comparing them to inflammatory bowel disease (IBD) incidence derived from the same population [3].

Microscopic colitis (MC) is a cause of chronic diarrhea that is subdivided into lymphocytic colitis (LC) or collagenous colitis (CC) based on the histologic presence of intraepithelial lymphocytosis with LC or a collagen band in those with CC, both with grossly normal mucosal appearance. Multiple studies have evaluated the incidence of MC, CC and LC, as seen in Table 1 [1–4, 6].

While MC is a disease characterized by gut mucosal inflammation, it is historically not considered in the same category as traditional IBD such as Crohn's disease (CD)

and ulcerative colitis (UC), perhaps due to overall lack of awareness or to the notion that MC is rare. In this prospective study of the epidemiology of MC and IBD in northern France, the authors are the first to directly compare the incidence of MC to that of IBD over the same time period using the prospective EPIMAD registry of patients with inflammatory bowel disease in northern France [3, 5]. The importance and novelty of this finding is that other studies have not directly compared the incidence of MC to the incidence of IBD in the same population. In their analysis, the mean annual incidence CD for the same time period (2005–2007) was 7.4/100,000 for Crohn's, 4.9/100,000 for UC, and 7.9/100,000 inhabitants for MC [3]. The incidence of IBD has been separately studied in the Rochester Epidemiology Project: from 1990 to 2000, the annual adjusted incidence of UC was 8.8/100,000 and CD 7.9/100,000 [6], similar to that of northern France. With the incidence of MC similar to that of IBD, MC should occupy a more prominent place within the IBD spectrum.

Indeed, the number of research studies published on MC is only a small fraction of the research studies published on IBD. Thus, more investigation and research are necessary to better understand MC as it relates to risk factors including medications, delay in diagnosis, histologic factors, and treatment algorithms to induce and maintain disease remission.

Limited information is available regarding the impact on quality of life of MC, which has been studied extensively for UC and CD. Diagnostic delay of IBD correlates with increased disease complications and affects quality of life, with median delays in diagnosis of 9 months (3–24 months) [7]. Similarly, delays in MC diagnosis impact quality of life and healthcare costs to the patient and to the institution, which may lead to unnecessary diagnostic testing. The authors in this paper report a median time to

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Table 1 Incidence per 100,000 person years

Authors	CC	LC	MC overall	CD	UC
Fumery et al. (2005–2007)	5.3	2.6	7.9	7.4	4.9
Loftus et al. (1990–2000)	–	–	–	7.9	8.8
Pardi et al. (1985–2001)	3.1	5.5	8.6	–	–
Gentile et al. (2002–2010)	9.0	12.0	21.0	–	–
Tong et al.	4.14	4.87	–	–	–

MC microscopic colitis, CC collagenous colitis, LC lymphocytic colitis, UC ulcerative colitis, CD Crohn's disease

diagnosis of MC of 8 weeks, which is impressive but generally not our experience, as we reported a mean delay in diagnosis of over 30 months in our MC cohort [8]. Therefore, further prospective studies are needed to better evaluate the reason(s) and associated risk factors affecting the timing of the diagnosis of MC.

Among proposed etiologies for MC, an association with medications is controversial, as some studies suggest that medications such as nonsteroidal anti-inflammatory drugs (NSAIDs), proton pump inhibitors (PPIs), and selective serotonin reuptake inhibitors (SSRIs) cause MC, whereas others hypothesize that the medications may have exacerbated an already present MC. Here, the authors state that 36% were treated with PPI, 22% with antidepressants, and 10% with NSAIDs [3]. Of their cohort, 9 patients discontinued the potentially offending medication and achieved remission [3]. The authors also drew conclusions regarding the discontinuation of diuretics and PPIs as being “more important” than with CC [3]. Nonetheless, with such small numbers, it is difficult to differentiate whether stopping the offending medication or treatment of the MC was responsible for disease remission. Furthermore, diuretics have not been typically associated as a risk factor for MC. A recent meta-analysis of retrospective data described an increased incidence of MC associated with PPIs and SSRIs [2].

Therefore, prospective studies are needed in order to establish the relationship between medications and the potential development of MC.

In summary, there is growing evidence, including this paper by Fumery and colleagues, that the incidence of MC is approaching that of CD and UC. Although MC has yet to occupy the same degree of awareness as IBD, it is important that physicians recognize MC in the differential diagnosis of a patient with persistent chronic watery diarrhea.

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