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Editorial: the increasing burden of microscopic colitis

Microscopic colitis (MC) is a worldwide emergent cause of watery chronic diarrhoea in adults.[1,2] Initially considered a rare disease, several epidemiological studies reported an increasing incidence over time with similar incidence rate of Crohn's disease or ulcerative colitis, especially in women and elderly patients.[3,4] However, both regional [3,4] and nationwide [5-7] studies have often shown heterogenous results in terms of incidence rate, trends and distribution among collagenous colitis (CC) and lymphocytic colitis (LC), the two main subtypes of MC (Table 1).

In a recent issue, Bergman et al explore the incidence rate of MC in Sweden over a 20-year period using a national pathology registry with combination of clinical data.[8] Notably, this registry was previously validated performing a retrospective review of the medical charts of 215 randomly selected MC pathology records from 15 pathology departments.[9] Although this validation process involved a small subset of MC incident cases (0.07%) from five counties, the resulting 95% positive predictive value represents a unique and solid basis to minimise the risk of false positive diagnosis and reliably estimate the real incidence of MC in Sweden.[9]

Consistent with two recent nationwide cohort studies from Denmark[6] and the Netherlands,[7] the study from Bergman et al confirms the MC incidence rise also in Sweden (up to 10.7 cases/100 000 person-years).[8] The Swedish study, however, has a longer follow-up (20 years, 1995-2015) revealing a stabilising trend in recent years.[8] Interestingly, two consecutive population-based studies from the Olmsted County in 1985-2001 and 2002-2010[10] described the same plateau effect. The spread of MC-related risk factors, together with an ameliorated access to colonoscopy, number of colonic biopsies and clinical awareness are regarded as the main drivers of this figure.

A predominance for the LC subtype was found in Bergman et al study, in accordance with pooled incidence rate reported in a previous meta-analysis.[3] On the contrary, the three previous nationwide studies from Iceland,[5] Denmark[6] and the Netherlands[7] as well as other regional or local studies in Sweden[3,10] contradict this. Resolving this apparent discrepancy remains an unresolved research question. There is a risk of misclassification between the two main subtypes due to: patchy distribution of the thickened collagen band compared with the more general increase in the intraepithelial lymphocyte count[8]; variation in pathologists' practice and histological stains applied, especially in borderline cases[1]; no homogeneous predefined diagnostic protocol (number of biopsies or other explorations to rule out other diagnosis); and other genetic or environmental influencing factors.

Well-designed epidemiological and case-control studies are still necessary to determine the precise burden of MC and of its two main subtypes (CC and LC) worldwide. Nonetheless, the clinical perception of MC is remarkably changed 40 years after their discovery. In 2019, the sum of evidence requires us to think about MC, consider it during colonoscopy and always take biopsies throughout the colon.

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TABLE 1 Epidemiological studies on microscopic colitis

First author (year)	Country/city	MC incidence (95% CI)	CC incidence (95% CI)	LC incidence (95% CI)
Nationwide studies				
Agnarsdottir (2002)	Iceland	NA	5.2 (4.1-6.6)	4 (3-5.2)
Agnarsdottir (2002)	Denmark	4.6-24.7[a]	2.9-14.9 (NA)[a]	1.7-9.8 (NA)[a]
Agnarsdottir (2002)	The Netherlands	3.4 (3.3-3.5)	1.8 (1.7-1.8)	1.3 (1.2-1.3)
Agnarsdottir (2002)	Sweden	7.2 (5.6-8.7)	NA	NA
Swedish studies				
Bohr (1995)	Örebro	NA	1.8 (1.2-2.4)	NA
Olesen (2004)	Örebro	NA	4.9 (3.6-6.2)	4.4 (3.1-5.7)
Vigren (2012)	Skane	NA	5.4 (4.3-6.5)	NA
Thorn (2013)	Uppsala	NA	7 (NA)	4.8 (NA)
Wickbom (2013)	Örebro	10.2 (8.7-11.7)	5.2 (4.2-6.3)	5 (4-6)
Davidson (2018)	Skane	NA	5.9 (4.6-7.3)	2.7 (1-4.3)

Abbreviation: NA, not available.
[a]Incidence rate of MC, CC and LC in 2002 and 2011 years.

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