Clinics and Research in Hepatology and Gastroenterology (2017) xxx, xxx–xxx

Available online at ScienceDirect www.sciencedirect.com

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ORIGINAL ARTICLE

Over 90% of cases of Microscopic Colitis can be diagnosed by performing a short colonoscopy

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Summary
Aims: To determinate the topographical distribution of key diagnostic histological features of lymphocytic colitis (LC) and collagenous colitis (CC) and to establish what correlations may exist between the histological findings and the causes and severity of MC.

Abbreviations: CC, collagenous colitis; *H. pylori*, *Helicobater pylori*; IELs, intraepithelial lymphocytes; LC, lymphocytic colitis; MC, microscopic colitis.

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http://dx.doi.org/10.1016/j.clinre.2016.12.008

Please cite this article in press as: Macaigne G, et al. Over 90% of cases of Microscopic Colitis can be diagnosed by performing a short colonoscopy. Clin Res Hepatol Gastroenterol (2017), http://dx.doi.org/10.1016/j.clinre.2016.12.008

Patients and methods: Patients with MC were included in a prospective multicentre French study from September 2010 to October 2012. MC was diagnosed by performing total colonoscopy with multiple biopsies of the rectum and colon collected in separate jars and analyzed separately for each site (descending and sigmoid colon, transverse colon, ascending colon). CC was defined as a subepithelial collagen layer > 10 μm thick and LC as an intraepithelial lymphocyte (IEL) count > 20 lymphocytes per 100 epithelial cells without any associated thickening of the subepithelial collagen.
Results: Ninety-five patients, 69 with LC 26 and with CC, were included in the analysis. The sensitivity of the biopsies for diagnosing MC was maximum in the transverse colon and minimum in the rectum. Rectal and left colonic biopsies resulted in the diagnosis of CC and CL in 93% and 94% of cases, respectively. All the remaining cases of MC were diagnosed by performing additional biopsies beyond the splenic flexure. In patients with LC, a higher rate of IELs was associated with the absence of abdominal pain ($P = 0.01$) and a shorter duration of diarrhea ($P = 0.001$). In patients with CC, a lower level of collagen thickness in the basement membrane was associated with the presence of an autoimmune disease ($P = 0.02$).
Conclusion: More than 90% of cases of microscopic colitis were diagnosed in this study by performing rectal and left colonic biopsies.

Introduction

Microscopic colitis (MC), including collagenous colitis (CC) and lymphocytic colitis (LC), is a common cause of chronic and recurrent watery diarrhea in patients with normal radiological examinations, a normal or nearly normal endoscopic appearance of the colon and specific microscopic abnormalities in the colonic biopsies. Collagenous colitis was defined as a sub-epithelial collagen layer at least 10 μm thick and lypmphocytic colitis, as an intra-epithelial lymphocyte (IEL) count of at least 20 lymphocytes per 100 epithelial cells [1].

In line with the recommendations of the European Microscopic Colitis Group [2], the authors have previously stressed the importance of taking multiple biopsy specimens along the whole colon, since diagnoses based on sigmoid and/or rectal biopsy specimens alone are not sufficiently reliable. Although cases of microscopic colitis will frequently be missed on the basis of rectal biopsy specimens alone, several large studies have shown that biopsy specimens taken from the left colon provided useful means of diagnosing both collagenous and lymphocytic colitis in more than 95% of cases [3]. The benefits of flexible sigmoidoscopic methods therefore include savings in terms of both cost and time and the fact that less bowel preparation and no sedation of the patients are required.

In a previous prospective study conducted at 26 French centers, we identified 129 cases of microscopic colitis, including 87 LC and 42 CC [4], among which 95 patients, including 69 with LC et 26 with CC, had undergone stepped colorectal biopsies collected in separate jars. The aims of the present study on this derived cohort of 95 patients were to determine:

- how the key diagnostic histological features of LC and CC were distributed topographically;
- if there existed any correlations between these histological findings and the causes and severity of MC;
- and if it was worth performing other additional GI-tract biopsies.

Patients and methods

Patients with MC included in a French prospective multicentre study between September 2010 and October 2012, who had undergone total colonoscopy and stepped colonic biopsies were included in the present study [4]. The strengths of this study included its prospective nature, the fact that it involved standardized inclusion criteria (at least 3 bowel movements daily with changes in the consistency, duration of the disorder equal to more than 4 weeks and normal or near normal colonoscopy), histological sampling and diagnostic criteria, and the relatively large number of patients and controls recruited within a short period. Among the 129 patients with MC (including 87 with CC and 42 with LC), those who had not undergone stepped colorectal biopsies collected in separate jars were excluded from the analysis. The final analysis therefore involved 95 patients (including 69 with LC et 26 with CC) who had undergone stepped colorectal biopsies collected in separate jars.

Clinical and biological data

Data collection was done prospectively by each investigator at the time of consultation and indication of the realization of the colonoscopy and gastroscopy was decided during this consultation. The following epidemiological and clinical data were collected prospectively at the time of diagnosis: number of daily bowel movements (3 to 4, 5 to 9, 10 or more), the occurrence of nocturnal stools, abdominal pain, and weight loss. The date of diagnosis was defined as the year and month in which the diagnosis was made on the basis of colonoscopic findings, and the date of onset of symptoms was defined as that on which

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