Letter to the Editor

Disease Extension Matters in Endoscopic Scores: UCEIS Calculated as a Sum of the Single Colonic Segments Performed Better than Regular UCEIS in Outpatients with Ulcerative Colitis

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We have read with great interest the article by Corte et al. Indeed, the Ulcerative Colitis Endoscopic Index of Severity (UCEIS) provides an accurate evaluation of the mucosal appearance together with high intra- and inter-observer agreement. Nonetheless, it considers just the more inflamed colonic segment, not including the disease extension. This could from one side allow the calculation of the score even from a rectum-sigmoidoscopy, thus avoiding complete colonoscopy. This could from one side allow the calculation of the score intra- and inter-observer agreement.

We retrospectively analysed data of 80 UC outpatients, between 2009 and 2013, at S. Andrea Hospital in Rome, Italy. We included patients who had, within a 1-month period, both complete colonoscopy and clinical examination, and at least 1 year of follow-up. Based on endoscopic reports, we calculated the UCEIS score, either in the traditional way considering only the most inflamed colonic segment, or calculating a global score total UCEIS (tU) from the sum of the score of five colonic segments [rectum, sigmoid, descending, transverse, and ascending colon]. The two scores were then compared.

UCEIS and tU score showed a very good correlation [Spearman’s r = 0.86, p < 0.0001]. The correlation was still evident for low values of the UCEIS scores [score ≤5] [r = 0.86, p < 0.0001], but it decreased substantially for higher values [UCEIS > 5] [r = 0.48, p < 0.01]. The tU better correlated with the clinical index (Walmso’s Simple Clinical Colitis Activity Index [SCCAI]) than UCEIS [r = 0.64 vs r = 0.52] [Figure 1A]. Discriminative ability for patients with flare at 1 year was significantly higher for tU than for the UCEIS score [area under ROC curve = 0.68 ± 0.06 vs 0.60 ± 0.07, p < 0.01] [Figure 1B]. The value of the tU score was significantly higher in patients with a flare than in those without [25.3 ± 8.2 vs 20.1 ± 6, p < 0.005], whereas it did not differ for the UCEIS [5.9 ± 2.2 vs 5.12 ± 1.9, p = non-significant] [Figure 1C]. The distribution of patients with a score above and below the median value significantly differed in the group with flare at 1 year in comparison with the group without flare for tU [p < 0.05], whereas no significant difference emerged for the UCEIS score [p = 0.17] [Figure 1D]. A tU score > 20 [median] was related to a significant increase in possibility of a flare at 1 year, in comparison with a value of ≤ 20 (odds ratio [OR]: 3.07, 95% confidence interval [CI]: 1.2–7.9, p = 0.02), whereas no significant increase in the association with flare was found between UCEIS score ≤5 vs >5 [OR: 2.1, 95% CI: 0.84–5.39, p = 0.11].

With the limitation of the retrospective analysis, the present work suggests that the evaluation of the disease extension may be relevant, in particular in the outpatient setting, where the evaluation of disease by complete colonoscopy may represent the most accurate method to evaluate disease activity.

Conflict of Interest

All the authors declare that they have no conflict of interest in the present work.

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References

Figure 1. Performance comparison of Ulcerative Colitis Endoscopic Index of Severity (UCEIS) and total UCEIS (tU) in ulcerative colitis (UC) outpatients. A. Correlation between UCEIS and tU and clinical index (Walmsley's Simple Clinical Colitis Activity Index [SCCAI]), with regression line represented. B. Area under receiver operating characteristic (ROC) curve of UCEIS and tU for discrimination of patients with and without flare at 1 year. C. Comparison of UCEIS and tU value in patients with and without flare at 1 year. D. Distribution of patients with UCEIS and tU value above and below the median value in the group with and without flare at 1 year. *p < 0.05, **p < 0.005.