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Et al.

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Title: Development and Validation of a Clinical Scoring System to Differentiate Patients with Inflammatory Bowel Disease and Diarrhea-Predominant Irritable Bowel Disease

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Background: There is no validated scoring system for differentiating inflammatory bowel disease (IBD) from irritable bowel syndrome (IBS). Studies variably report clinical measures such as radiology, endoscopy, inflammatory markers, and symptoms to separate IBS from IBD. Our study seeks to create a system to IBD patients from IBS. The “REBISS” score incorporates various clinical criteria used commonly for diagnosis. We also studied a second system called “REBISS-PCP” focusing on a subset of criteria that are available to PCPs when faced with this challenge.

Methods: This study was approved by the UMass IRB. Two cohorts were identified: 24 IBD patients (Group1) and 24 IBS patients (Group2). Subjects in Group1 were patients with Crohn’s or ulcerative colitis. Subjects in Group2 were identified as having IBS based on ROME III criteria. Retrospective analysis was performed and a score was calculated. One point is assigned for having: radiological findings consistent with IBD, endoscopic findings of inflammation or ulceration, biopsy findings consistent with IBD, elevated inflammatory markers, weight loss, hematochezia, extra-intestinal signs/symptoms, palpable mass on exam, and perianal disease. The maximum score is 10 points. For the REBISS-PCP score, the same clinical criteria were studied with the exclusion of endoscopic and biopsy findings. Maximum score for that system is 8 points. A likelihood ratio chi-square test was performed for both cohorts and scoring systems.

Results: The REBISS scoring system showed a significant differentiation of the two cohorts in regards to scoring distribution (chi-square value = 59.8; $p < 0.0001$). The REBISS-PCP scoring system also found a significant differentiation of the two cohorts (chi-square value = 35.7; $p < 0.0001$).

Discussion: The REBISS scoring system could be used to standardize IBD and IBSd populations in an academic research setting, while both the REBISS and REBISS-PCP scoring system could be used as a screening tool in clinical practice.