

DEVELOPMENT OF THE CROHN'S DISEASE DIGESTIVE DAMAGE SCORE (LÉMANN SCORE) USING THE DELPHI METHOD.

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INTRODUCTION: Crohn's disease (CD) is a chronic progressive, destructive disease. Currently available instruments measure disease activity at a specific point in time. An instrument to measure cumulative structural damage to the bowel (the Lémann score) is under development. We here report the first step of its construction using the Delphi method.

AIMS & METHODS: The digestive tract was divided into 6 "organs": oesophagus, stomach, duodenum, small bowel (divided into 20 segments), colon/rectum (divided into 6 segments), and anus. For small bowel and colon, damage was assessed at a segmental level. Evaluation of damage (on a scale from 0 to 10) took into account absence or presence of mild, moderate, or severe stricturing (S0 to S3) and penetrating (P0 to P3) lesions, and history of surgery. Each grade of lesion was defined in the study protocol. Altogether 107 different situations corresponding to different grades of damage in each organ were scored. The Delphi method involved a panel of 21 experts who scored damage in each organ in 6 rounds. After each round, consistency and distribution of scores were evaluated, and scores were classified as consensus (complete agreement), partial consensus (agreement with <3 scores outside of range), and no consensus.

RESULTS: Eight conservative surgical procedures were not further scored after step 4 because it was considered that consensus was impracticable, leaving 99/107 situations. At step 4, among these 99 situations, consensus was reached for 31 situations, partial consensus for 49, and no consensus for 19. After round 6, consensus was reached for 77 situations and partial consensus for 22. Table shows the severity of damage scores (rounded mean \pm standard deviation) of most relevant combination of lesions, where 0=no damage and 10=excision of the affected part.

	Oesophagus	Stomach	Duodenum	Small bowel segment	Colon segment/rectum	Anus
S0 P2	3.0 \pm 0.6	3.0 \pm 0.8	4.0 \pm 0.7	3.0 \pm 0.5	3.5 \pm 0.6	4.0 \pm 0.7
S1 P3		7.0 \pm 0.5	7.0 \pm 0.5	6.5 \pm 0.6	7.0 \pm 0.4	7.0 \pm 0.5
S2 P0	3.0 \pm 0.4	3.5 \pm 0.7	3.5 \pm 0.4	3.0 \pm 0.7	3.0 \pm 0.4	3.0 \pm 0.7
S2 P3	7.5 \pm 0.5	7.5 \pm 0.5	8.0 \pm 0.6	7.5 \pm 0.5	7.5 \pm 0.4	8.0 \pm 0.5
S3 P0	6.0 \pm 0.3	6.0 \pm 0.7	6.5 \pm 0.4	6.0 \pm 0.8	6.0 \pm 0.6	6.5 \pm 0.5
S3 P3	9.0 \pm 0.6	9.0 \pm 0.3	9.0 \pm 0.2	9.0 \pm 0.3	9.0 \pm 0.3	9.0 \pm 0.3

CONCLUSION: According to the Delphi method, consensus regarding evaluation of bowel damage was reached. Further construction of the Lémann score continues through assessment of bowel damage in 137 patients with CD.