

DEEP LEARNING AND MINIMALLY INVASIVE CROHN'S DISEASE INFLAMMATORY ACTIVITY ASSESSMENT: DEVELOPMENT OF A PAN ENDOSCOPY CONVOLUTIONAL NEURAL NETWORK

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Poster

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A convolutional neural network-based automated scoring system for capsule endoscopy showed strong correlation with validated inflammation scores in 61 Crohn's disease patients.

KEY POINTS

- The AI-generated score (SB_AIS) demonstrated strong correlation with established scoring systems: CECDAI ($r=0.707$), and ELIAKIM ($r=0.655$), all with $p=0.001$
- The automated score calculated the percentage of positive frames selected by the algorithm for small bowel and colon separately from pan-enteric capsule endoscopy videos
- Median scores in the 61-patient cohort were CECDAI 6 (range 0-33), ELIAKIM 4 (range 0-38), and SB_AIS 0.5659 (range 0-29.45)
- The authors conclude the AI-generated score could serve as an objective and efficient method for evaluating inflammation in Crohn's disease patients and provide a basis for future refinement
- This pre-proof retrospective study may interest gastroenterologists working with capsule endoscopy and clinicians managing Crohn's disease

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