APPLICATION OF ARTIFICIAL INTELLIGENCE IN THE DETECTION OF BORRMANN TYPE 4 ADVANCED GASTRIC CANCER IN UPPER ENDOSCOPY

Seyeong Jo

UEG Week Copenhagen 2023 | Poster

Oesophagus

October 15, 2023

An artificial intelligence system using ResNet-152 was developed to detect Borrmann type 4 gastric cancer from upper endoscopic images, achieving 92.12% accuracy on image-level identification and 97% accuracy on patient-level diagnosis.

KEY POINTS

- Borrmann type 4 gastric cancer is a diffuse gastric cancer that infiltrates the gastric wall without overt mass or ulceration, is associated with poor prognosis, and is easily missed on routine endoscopy.
- The AI model was trained on 227 gastric cancer patients and 227 controls from Seoul National University Hospital using a ResNet-152 deep learning network.
- Image-level performance showed 87.29% sensitivity, 97.97% specificity, and 92.12% accuracy for identifying Borrmann type 4 gastric cancer.
- Patient-level diagnosis using a threshold of more than 50% positive images improved performance to 94% sensitivity, 100% specificity, and 97% accuracy.
- The authors note that further internal and external validation is needed before clinical implementation.

VIEW THIS CONTENT ON GUTFLIX

https://gutflix.eu/search/d/9a5e9cd8-743c-11ee-acf4-0242ac140004

AI-generated summary

This summary was generated by an AI large language model based on the content transcript. It is for informational purposes only and should not be considered a substitute for clinical judgment. Always rely on your professional expertise and the full clinical context when making clinical decisions.