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Artificial intelligence technique in the detection of early esophageal cancer

Huang LM *et al.* AI in the detection of early EC

Lu-Ming Huang, Wen-Juan Yang, Zhi-Yin Huang, Cheng-Wei Tang, Jing Li

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Artificial intelligence using **convolutional neural networks** for real-time detection of early esophageal neoplasia in Barrett's esophagus (with video) The CNN analyzed 458 test images (**225 dysplasia** and **233 nondysplasia**) and correctly detected **early neoplasia** with sensitivity of 96.4%, specificity of 94.2%, and accuracy of 95.4%.

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Jun 01, 2020 · Recently, artificial intelligence (AI) using **deep learning (DL)** with **convolutional neural networks (CNNs)** has emerged and showed great results in the diagnosis and detection of **lesions** in the esophagus, 14, 15, 16, 17 stomach, 18, 19, 20, 21 **small bowel**, 22 and colon. 23, 24, 25, 26 However, no study has been reported on an application of DL for detection of early neoplasia within BE.

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