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Application of artificial neural network in the detection and diagnosis of gastrointestinal and liver tumors

ANN in gastrointestinal and liver tumors

Wei-Bo Mao, Jia-Yu Lyu, Deep K Vaishnani, Yu-Man Lyu, Wei Gong, Xi-Ling Xue, Yang-Ping Shentu, Jun Ma

Abstract:

As a form of artificial intelligence and artificial neural network (ANN) have the advantages of adaptability, parallel processing capabilities, and non-linear processing. They occur widely in the early detection and diagnosis of tumors. The working principle and characteristics of the ANN introduced and the research progress of the application of ANNs in the detection and diagnosis

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We constructed a convolutional **neural network** computer-aided **detection** (CNN-CAD) system based on endoscopic images to determine invasion depth and screen patients for endoscopic resection.

METHODS: Endoscopic images of gastric cancer **tumors** were obtained from the Endoscopy Center of Zhongshan Hospital.

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