

Early-Onset Identification of Stomach Cancer Using CNN



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Abstract Due to its ability to hide for a long time, Stomach cancer is considered to be difficult to find cancer among all other cancers that are present. It's a progressing case of cancer within our World. The most common method used across the world for the diagnosis of gastric cancer is Endoscopy. Endoscopy diagnosis could be a very specific and sensitive method. With high-resolution endoscopy, it's possible to detect mild discolorations, bulges, and structural irregularities over the surface of the Mucosa (a membrane in the stomach). However, due to the fact that procedures are performed in the presence of a doctor, it's possible that the cancerous areas are also missed and/or incompletely detected. Because the cancerous area can't be detected completely may result in the matter of cancer recurrence after a certain period of surgical intervention. So, in order to overcome this problem, a Computerized Decision Support System (CDS) is being implemented. Here, we are implementing a convolutional neural network (CNN) algorithm for us to spot the Stomach Cancer and classify it as either malignant or benign. This algorithm works as an assistant to gastroenterology doctors, helping them to spot the cancerous area within the endoscopic images of the scaffold, so as to require biopsies from these areas and to create a more vigorous diagnosis. We believe that the Gastric cancer identification plays a helpful role in determining the Cancerous area using the biopsy samples that are taken from the patient.

Keywords Benign · Biopsy · Convolutional neural network · Endoscopy · Gastric cancer · Malignant

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