

Diagnostic Performance of Multidetector–row Computed Tomography and Ultrasonography for Early Gastric Cancer

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Abstract : Background : A precise preoperative assessment of cancer spread and concomitant disease is important to determine the best treatment strategy for patients with early gastric cancer (ECG). The purpose of this study was to assess the diagnostic performance of multidetector –row computed tomography (MDCT) and to examine whether an examination of both routine MDCT and ultrasonography (US) are necessary for preoperative assessment of ECG. Patients and method : From January 2006 to December 2008, 168 consecutive patients with gastric cancer underwent a gastrectomy at this institution. Sixty–three of these 168 patients were preoperatively diagnosed as ECG with gastroscopy, upper gastrointestinal enema, MDCT and abdominal US. Results : The sensitivity, specificity and accuracy of MDCT for detection of lymph node metastasis were 33.3% , 98.1% and 88.9% , respectively. The US findings were not able to detect any lymph node metastasis. A structural anomaly was detected by MDCT and US in 92 places without lymph node metastases. Forty–four of these 92 abnormalities were found by both examinations. Inguinal hernias and incisional hernia were found by MDCT, but not by US. In contrast, gallbladder polyps and chronic hepatitis were found by US, but not by MDCT. Five cases (7.9%) required additional treatment based on abnormalities detected only by preoperative MDCT or US examination. Conclusion : MDCT and US are effective for the assessment of cancer spread and concomitant disease before surgery. It is therefore not necessary to routinely perform both MDCT and US, for preoperative assessment of ECG.

Key words : Early gastric cancer, Multidetector–row CT, Ultrasound sonography, Lymph node metastasis