Scientific Research Process

Title: Evaluation of recurrence in gastric carcinoma: comparison of contrast-enhanced CT and PET/CT

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1. What did this study explore?

Answer: Gastric carcinoma is a leading cause of cancer death worldwide. Contrast-enhanced abdominal CT and PET/CT are commonly used imaging methods for surveillance of recurrence after gastric cancer surgery. But ideal method for early detection of gastric carcinoma recurrence remains controversial. In this article we compare the value of contrast-enhanced abdominal CT and PET/CT for detecting the recurrence of gastric carcinoma after curative resection.

2. How did the authors perform all experiments?

Answer: We analyzed the data of 2,475 patients who subsequently underwent both contrast-enhanced abdominal CT and PET/CT for the surveillance of gastric carcinoma recurrence after curative resection. Then, all CT and PET/CT images were reviewed retrospectively. Sensitivity, specificity, and accuracy were calculated. McNemar's test was conducted for comparing the diagnostic efficacy of contrast-enhanced abdominal CT and PET/CT in patients-, lesion- and pathological type-based analysis

3. How did the authors process al experimental data?

Answer: Data from the reviewers were analyzed separately. The characteristics of patients with and without recurrence were compared using Student's t test for noncategorical variables and the x^2 test for categorical variables. Sensitivity, specificity, and accuracy were calculated. McNemar's test was conducted for comparing the diagnostic efficacy of contrast-enhanced abdominal CT and

PET/CT in patients-, lesion- and pathological type-based analysis. A p-value of < 0.05 was considered to indicate a significant difference.
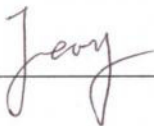
4. How did the authors deal with the pre-study hypothesis?

Answer: Through the pre-study analysis, we demonstrated that Contrast-enhanced CT was superior to PET/CT in the detection of peritoneal carcinomatosis. And, we also found that there was no significant difference in the detection of locoregional recurrence, lymph node recurrence, liver metastasis.
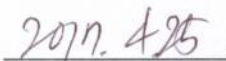
5. What are the novel findings of this study?

Contrast-enhanced CT was superior to PET/CT in the detection of peritoneal carcinomatosis and pathologic type of adenocarcinoma.

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