KORELASI ANTARA GAMBARAN *COMPUTED TOMOGRAPHY* DENGAN KADAR *CARCINOEMBRYONIC ANTIGEN* SERUM PADA ADENOKARSINOMA KOLOREKTAL

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INTISARI

Latar belakang: Adenokarsinoma kolorektal differensiasi buruk memiliki prognosis yang lebih jelek dibandingkan dengan derajat differensiasi baik. Penelitian menunjukkan *Computed tomography scan* (CT *scan*) mampu membedakan derajat differensiasi adenokarsinoma kolorektal. Penelitian juga menunjukkan adenokarsinoma kolorektal derajat differensiasi baik cenderung menghasilkan c*arcinoembryonic antigen* (CEA) yang tinggi. Nilai tersebut secara tidak langsung menjadikan CT scan dan kadar CEA serum menjadi prediktor prognosis pasien. Namun hingga saat ini belum ada studi yang meneliti langsung hubungan antara gambaran pada CT *scan* dengan kadar CEA serum pada adenokarsinoma kolorektal.

Tujuan penelitian: Mengetahui korelasi antara gambaran pada MSCT *scan* abdomen dengan kadar CEA serum pada pasien adenokarsinoma kolorektal.

Bahan dan Cara: Penelitian ini adalah studi observasional analitik uji korelasi *cross-sectional* dengan *non-random consecutive sampling*. Penelitian dilakukan di RSUP Dr. Sardjito Yogyakarta dengan sampel penelitian dari bulan Januari 2014 – Agustus 2019. Subjek penelitian adalah pasien dengan adenokarsinoma kolorektal yang telah menjalani pemeriksaan CT *scan* abdomen dan kadar CEA serum. Dilakukan analisis deskriptif karakteristik subjek dan uji *Spearman Correlation Coefficient* untuk mengetahui hubungan karakteristik gambaran pada CT *scan* abdomen dengan kadar CEA serum.

Hasil: Didapatkan 72 subjek, subjek laki-laki 52.78% dan perempuan 47.22%. Rentang usia dari 32 hingga 81 tahun. Letak tumor dominan di rektosigmoid (88.88%). Uji *Spearman Correlation Coefficient* menunjukkan bahwa karakteristik gambaran pada CT abdomen : panjang segmen usus yang terlibat tumor dengan nilai koefisien korelasi 0.292 ($p = 0.013$), pola penyangatan tumor dengan nilai koefisien korelasi 0.225 ($p = 0.048$), dan bentuk *fat stranding* dengan nilai koefisien korelasi 0.292 ($p = 0.013$).

Kesimpulan: Terdapat korelasi positif yang rendah antara panjang segmen usus yang terlibat tumor, pola penyangatan tumor, dan bentuk *fat stranding*; dengan kadar CEA serum

Kata kunci: MSCT *scan*, kadar CEA serum, adenokarsinoma kolorektal

CORRELATION BETWEEN COMPUTED TOMOGRAPHY AND SERUM CARCINOEMBRYONIC ANTIGEN LEVEL OF COLORECTAL ADENOCARCINOMA

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ABSTRACT

Background: Poorly differentiated colorectal adenocarcinoma had worse prognosis compared to well differentiated colorectal adenocarcinoma. Researches have shown that c*omputed tomography scan* (CT *scan*) had the ability to differentiate the degree of colorectal adenocarcinoma. Researches also shown that well differentiated colorectal adenocarcinoma expressed high c*arcinoembryonic antigen* (CEA) level. Those values indirectly make CT scan and CEA serum level as patient prognosis predictor. However there is still no research showing the correlation between CT scan imaging characteristic and CEA serum level.

Objective: To understand the correlation between imaging characteristic on computed tomography and CEA serum level on adenocarcinoma colorectal patients.

Materials and Methods: This was an observational correlation analysis study of cross-sectional design with retrospective non-random consecutive sampling. The study was conducted at RSUP Dr. Sardjito Yogyakarta in January 2014 - Agustus 2019. Research subjects were patients with colorectal adenocarcinoma who had undergo abdominal MSCT scan and CEA serum level examination. Descriptive characteristics analysis of subjects and *Spearman Correlation Coefficient* were performed to determine the relationship of MSCT scan findings and CEA serum level.

Results:.There were 72 subjects, 52.78% men and 47.22% women. Age ranges from 32 to 81 years old. The dominant location of tumors in rectosigmoid (88.88%). Spearman Correlation Coefficient test showed that abdominal CT characterization : length of tumor involved colonic segment with correlation coefficient value 0.292 ($p = 0.013$), tumor enhancement pattern with correlation value 0.225 ($p = 0.048$), and fat stranding shape with correlation coefficient value 0.292 ($p = 0.013$).

Conclusion: There were low positive correlation between length of tumor involved colonic segment, tumor enhancement pattern, and fat stranding shape; with CEA serum level of colorectal adenocarcinoma patients

Keywords: MSCT scan, CEA serum level, colorectal adenocarcinoma