

Investigating the Clinical Data and Their Correlation with Carcinoembryonic Antigen Levels in a Cohort of Patients with Colorectal Cancer

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Colorectal cancer (CRC) is the third most common cancer type in the world. Carcinoembryonic antigen (CEA) is widely used as a marker for CRCs. Research has been conducted in different populations to elucidate the correlation between CEA levels and clinical findings in CRCs. However, data on Sri Lankan CRC patients are sparse; none reports the CEA levels or its correlations with clinical findings. The objective of this study was to analyse the clinical findings and the CEA levels in a cohort of CRC patients. Clinical data and CEA levels of 48 patients with CRCs reported to the University Hospital, Kotelawala Defence University, were analysed. The relationship of CEA levels with haemoglobin level, white blood cell count, platelet count, tumour length, degree of differentiation, and alanine aminotransferase levels were also analyzed to see if there is a correlation. The tumour locations were identified as 88.7% left-sided and 11.3% right-sided. At the time of diagnosis, most of the tumours were moderately differentiated (83%), and the average tumour length was 4.4cm. The mean CEA level was 55.9ng/mL. No correlations were identified between CEA level and the selected clinical findings. This study shows that most CRCs are diagnosed at a moderately differentiated stage with high CEA values. Findings in this study favour using CEA as a diagnostic marker. It provided no evidence of a correlation between high CEA and other prognostic markers, even though there is evidence of CEA as a prognostic marker. An extension of this study with more patients is necessary to validate the above results.

Keywords: *Colorectal cancer (CRC), Carcinoembryonic antigen (CEA)*