

Correlation of IL-6 And C-Reactive Protein Levels with the Stage, Differentiation and Types of Colorectal Cancer-A Cross Sectional Study

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1. Introduction

Interleukin-6(IL-6) and CRP have been involved in anti-inflammatory reaction and autoimmune diseases. Interleukin is known for enabling cancer growth and is essential for tumour-directed immune response. CRP modulates inflammatory responses and stimulate platelet and leukocyte responses associated with acute phase responses to tumour growth. Its accumulation in blood is associated with a low-level inflammatory response and is indicative of advancing disease, as occurs in cancer.

2. Materials and Methods

This is prospective cohort study conducted in Universiti Sains Malaysia (USM). 46 patients with newly diagnosed colorectal cancer (CRC) were recruited. Sample size was derived from 2.0 Arifin (2017).5cc of patient's venous blood sample was taken and was centrifuged for 5 minutes at 4500RPM in the lab. The serum was extracted and divided into two aliquots. One aliquot for the CRP while another for the IL6.CRP values were read using Quick Read Go CRP while IL6 levels were read using Elisa. Data were analysed using IBS SPSS 26.P value of < 0.05 was considered statistically significant [1-5].

3. Results

Data obtained were expressed as mean and standard deviation (SD) for numerical variables and frequency (n) with percentage (%) for the categorical variables. The mean value for IL-6 was 132.59pg/ml while CEA as 214.04ng/ml and most of the subjects have rectal cancer compared to colon cancer at stage 4. There was a significant correlation between IL-6 and the CRP. The highest median value

of CRP was found in the well-differentiated cancer group with the median of 96.00 and Interquartile (IQR) range of 89.00.

4. Conclusion

Most of the subjects were diagnosed as stage 4 colorectal cancer and the level of IL-6 increases as the stage increases. There was a significant correlation between IL-6 and the mean value of CRP. Thus, CRP and IL-6 values can be used as a tool to screen for early colon cancer.

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