

## **Analysis of Interleukin-6 and Interleukin-8 in a Cohort of Patients with Colorectal Cancers in Sri Lanka**

T Muhinudeen<sup>1</sup>, S Rasnayake<sup>1</sup>, AJIS Rathnayake<sup>1</sup> and WMMS Bandara<sup>1#</sup>

<sup>1</sup>*Faculty of Medicine, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka*

#bandarawmms@kdu.ac.lk

Colorectal cancer (CRC) is one of the most prevalent cancers globally, accounting for nearly 10% of all cancers. Interleukin-6 (IL-6) and Interleukin-8 (IL-8) levels have been reported to increase in CRC patients. The studies on IL-6 and IL-8 levels of CRCs have confined to Caucasian populations and levels of these cytokines have not been extensively investigated in South Asian populations. They have the potential of using as markers but are not being used in clinical practice, yet. Therefore, the aim of this study was to investigate the serum IL-6 and IL-8 levels in a cohort of Sri Lankan patients. Blood samples from thirty-five patients with CRCs and thirty five healthy volunteers were obtained after informed consent. The concentrations of IL-8 and IL-6 were measured using ELISA according to manufacturer's protocols. The mean serum concentration of IL-6 was found to be significantly higher in the CRC patients than controls ( $p < 0.05$ ). Although the mean serum concentration of IL-8 was higher in the CRC patients than controls the difference was not significant ( $p > 0.05$ ). Interestingly, the mean serum [IL-6] in colorectal cancer patients was correlated with the disease stage. The study provided preliminary evidence to use IL-6 as a potential biochemical marker to be used in the diagnosis of CRCs. However, it is necessary to analyze more patient samples to validate the results of this study.

**Keywords:** *colorectal cancer, Interleukin-6, Interleukin-8, serum, diagnosis*