

### **Evaluation of Metabolic Syndrome as A Risk Factor for Colorectal Cancer**

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#### **ABSTRACT**

**Objective:** This study was designed to determine the relationship between metabolic syndrome as a risk factor for colorectal cancer.

**Background:** Overweight and obesity are leading risks for global deaths. Although the increase in obesity over the last 35 years has been most dramatic in the US and western industrialized countries, similar trends have also been seen in urban areas of many developing countries. There are multiple common health consequences of an elevated body mass index, including risk for several metabolic disorders, some cancers and ultimately increased mortality.

**Patients and methods:** A case control study was carried out on 150 patients 100 cases with colorectal cancer (CRC), and 50 healthy age and sex matched controls. The patients were randomly selected from those attending Gastroenterology Unit in Menoufia University Hospital and Kafr el sheikh University Hospital, Egypt during April 2019 till February 2020. All subjects included in this study divided into Group I included 100 patients with (CRC) with colorectal cancer diagnosed based on pathological results and Group II included 50 normal healthy subjects of matched age and sex served.

**Results:** There was no statistically significant differences between the studied groups regarding gender ( $p=0.074$ ), and age/year ( $p=0.162$ ). While, Insulin-like growth factor-1 level and carcinoembryonic antigen were significantly higher among colorectal cancer patients than control groups ( $p<0.05$ ).

**Conclusion:** Metabolic syndrome (MetS) is a state of chronic low-grade inflammation as a consequence of complex interplay between genetic and environmental factors.

**Key words:** metabolic, colorectal, insulin, cancer