

**Immunohistochemical expression of Stanniocalcin 2
in colorectal cancer**

Thesis

Presented by

Rehab Sayed Galal

Demonstrator of Anatomic pathology
Faculty of Medicine, Fayoum University

Thesis

Submitted for Partial fulfillment of the MSc. Degree in Anatomic
Pathology

Anatomic Pathology Department

Faculty of Medicine

Fayoum University

2020

**Immunohistochemical expression of Stanniocalcin 2
in colorectal cancer**

Thesis

Submitted for Partial Fulfillment of the MSc. Degree in Anatomic Pathology

Presented by

Rehab Sayed Galal

Demonstrator of Anatomic pathology
Faculty of Medicine, Fayoum University

Supervised by

Prof. Dr. Mohammed Faisal Darweesh

Professor of Anatomic Pathology
Faculty of Medicine
Cairo University

Ass.Prof.Dr. Hala Mohamed El hanbuli

Assistant Professor of Anatomic Pathology
Faculty of Medicine
Fayoum University

Dr.Mohamed Hussein M. Elmahdi

Lecturer of Anatomic Pathology
Faculty of Medicine
Fayoum University

2020

SUMMARY

This is a retrospective study done on 60 cases of colorectal cancer paraffin blocks randomly selected from Pathology Department, Faculty of Medicine, Cairo University during the period between January 2018 and June 2019 obtained through colectomy procedures.

Sections were prepared from paraffin blocks and the slides were stained with hematoxylin and eosin and immunohistochemically stained with STC2.

Most of the studied cases of CRC were found in patients ≥ 40 years old representing 76.7% of all cases (46 cases) . The age of patients ranged from 19 to 84 years with a mean \pm SD of 51.9 ± 15.5 years. Female and male cases were equal representing a 1:1 ratio.

The commonest location for CRC in the studied cases was the ascending colon representing 46.7% of all cases. And 43.3% of the studied CRC cases appeared grossly as fungating mass, and 55 % of all cases showed tumor size ≥ 5 cm with Mean \pm SD of 5.2 ± 2.2 .

The majority of cases (96.7%) were classified histologically as adenocarcinoma, and according to the WHO criteria for histological grading of colorectal carcinoma 90% of cases were moderately differentiated and 10% were poorly differentiated. Well differentiated and undifferentiated cases were not included in this study and so couldn't be assessed.

In 76.6% of the studied CRC cases the tumor infiltrated into the subserosa or into pericolic or perirectal tissue (T3). And studied cases with lymph nodes metastasized represented 48.3% of all cases and only four cases (6.7%) showed distant metastasis while the remaining 56 cases were Mx.

In the studied cases, tumors with modified Dukes' stage B2 were the most common and represented 50% of cases, followed by C2 stage with 40% then D stage 6.7% and only one case of each B1 and C1. Lymphovascular invasion was detected in 16.7% of cases, while perineural invasion was found in 13.3% of cases.

The aim of this study is to evaluate the level of IHC expression of STC2 in 60 cases of CRC and determine its relation with different clinicopathological parameters.

In our study STC2 was expressed in 71.7% of the studied cases. There is a statistically significant relation between STC2 expression and each of the following parameters, tumor histological grade (p-value < 0.001), tumor depth of invasion (T-stage) (p-value = 0.004), lymph node stage (p-value = 0.001), Dukes' stage (p-value < 0.001), lymphovascular invasion (p-value < 0.001), and perineural invasion (p-value < 0.001). No statistically significant relation was found between STC2 and other clinicopathological parameters.