



**Name of candidate:** Heba Hiekal Mahmmoud Mouhammed.

**Degree:** Master degree

**Title of thesis:** Sirtuin 6 expression in colorectal adenocarcinoma

**Supervisors:** 1- Prof.Dr.Reham Shehab ELnemr.

2- Dr Dalia Nabil Abdelhafez.

**Department:** Anatomic Pathology.

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### **ABSTRACT**

**Background:** SIRT6, has recently shown to suppress tumor growth in several types of cancer. However, SIRT6 role in colon tumorigenesis is not understood.

**Objectives:** This work aimed to correlate Immunoscore (IS) in colorectal carcinoma with different prognostic clinicopathologic parameters.

**Methods:** Forty cases of paraffin sections diagnosed with colorectal carcinoma, collected from Nasser institute for treatment and research. Cases were stained sirtuin6 immunohistochemical stain, sirtuin6 was measured in tumor center and invasive margin. The correlations evaluated between IS and clinicopathological parameters of urinary bladder carcinoma.

**Results:** There was an inverse correlation between IS and tumor staging. No statistically significant relation between IS and other studied prognostic clinicopathologic parameters including (Patients' age, sex, tumor size, site, histological type, gross appearance, nodal stage, histological grading, vascular or perineural invasion).

**Conclusions:** SIRT6 is expressed in normal colon tissue and is down regulated in cancer colon. Decreased SIRT6 expression was related to higher T stage and presence of distant metastasis making it a potential good prognostic marker.

**Keyword:** colorectal carcinoma, Immunoscore, sirtuin6, immunohistochemistry.