SOX9 immunosuppression in primary colorectal cancer tumors with lymph node metastasis.

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Abstract:

Colorectal cancer is the most frequent malignant tumor of the digestive system and is defined as a malignant tumor of epithelial origin found in the large intestine. the 2020 Globocan reports that colorectal cancer is the third most frequent cancer, following breast cancer, which is in first place, and lung cancer, which is in second place. Its pathogeny is complex and involves the APC/-catenin sequence alteration, this is part of the chromosomal instability pathway that is responsible for 65–70% of spontaneous colorectal cancers and the APC mutation, the earliest alteration in colorectal cancer. Lymph node metastases are a significant indicator for determining treatment and are a prognostic factor. SOX9 overexpression is related to oncogenic qualities and the capacity for metastasis as both a biomarker in early diagnosis and a prognostic factor. Our aim was to analyze SOX9 immunoexpression in primary colorectal cancer and lymph node metastasis status. Material and methods: Seventy-nine available cases were divided into the group with lymph node metastasis (n = 38) and the group without lymph node metastasis (n = 41), evaluating their SOX9 expression. The IBM SPSS version 27 program in Spanish was utilized to carry out the statistical analysis, obtaining measures of central tendency, the kappa index, standard deviation, Wilcoxon Mann-Whitney nonparametric measurements, Spearman's correlation coefficient, and chi-square test and Student's t test values. SOX9 immunoexpression was evaluated through the mean-based H-score, with high immunoexpression as a score ≥ 145 and low immunoexpression as a score ≤ 144. Results: A p = 0.73 was obtained that was not statistically significant, regarding the relation of SOX9 expression in primary colorectal cancer to lymph node metastasis. Conclusions: The absence or presence of lymph node metastasis was independent from SOX9 immunoexpression in primary colorectal cancer. However, due to the limited size of the population analyzed, further research is needed.

Biography: My name is Miriam Espino Larralde, I'm 32 years old and I'm a pathologist. I was born in Zacatecas, Mexico in September 19 of 1992. I studied human medicine in the Autonomous University of Zacatecas from 2010 to 2017. Then I worked in the San Agustin Hospital in Guadalupe, Zacatecas for few years in the area of general Medicine. After that, I studied Pathology in the Ignacio Morones Prieto Central Hospital endorsed by the Autonomous

University of San Luis Potosi from march 2022 to february 2024, where I did the research work title “SOX9 immunosuppression in primary colorectal cancer tumors with lymph node metastasis” in collaboration with M.C. Gutiérrez Gil, V. M. Loza Gonzalez and H. G. Hernández Rodríguez. I’m currently studying the subspecialty of Pediatric Pathology in the National Institute of pediatrics endorsed by the Autonomous University of Mexico, in Mexico City from march 2024 to February 2026.