Reference

1. Moncrieff M, Cotton S, Claridge E, Hall P. Spectrophotometric intracutaneous analysis; a new technique for imaging pigmented skin lesions. *Br J Dermatol* 2002; 146: 448–57.

19. GENETIC DISSIMILARITY BETWEEN PRIMARY COLORECTAL CARCINOMA AND THEIR LYMPH NODE METASTASES: PLOIDY, P53, BCL-2 AND C-MYC EXPRESSION

Abd AlRahman Mohammad Foda¹, Khaled Refaat Zalata¹, Mohamed Farouk Elshal²

¹Pathology Department, Faculty of Medicine, Mansoura University, and ²Molecular Biology Department, Genetic Engineering and Biotechnology Institute, Sadat City University, Egypt

Introduction: The current paradigm of colorectal carcinoma (CRC) metastasis proposes that rare cells within primary tumors acquire metastatic capability via sequential mutations, suggesting that metastases are genetically dissimilar from their primary tumors. Greater understanding of the metastatic phenotype from cellular and molecular analyses will provide a rational approach for controlling CRC.

Objectives: Our goal was to compare aneuploidy, the expression of p53, Bcl-2 and c-myc in primary CRC and their corresponding LN metastases from the same patients.

Methods: Thirty-six primary CRCs and their corresponding LN metastases were studied. All clinicopathological data of the cases were revised with re-examination of all their slides. DNA flow cytometry and immunostaining of p53, Bcl-2 and c-myc were carried out on the primary tumors and their corresponding LN metastases.

Results: It was found that there is very low probability that the histological patterns of primary tumors and LN metastases are independent. Metastatic tumors were significantly more diffusely positive for p53 than the primary tumors. The reverse was true for c-myc expression. No significant difference was found between the LNs and the primary tumors in Bcl-2 positivity and DNA aneuploidy, with a tendency towards negative bcl2 and less aneuploidy in LN metastases than primary tumors.

Conclusion: LN metastatic colorectal carcinoma have a tendency of being less differentiated, with a higher incidence of diffuse p53 staining, lower incidence of bcl-2 staining and less aneuploidy in comparison to their primary counterparts, suggesting a more aggressive biological behavior, which could indicate the necessity for more aggressive adjuvant therapy.

20. ABERRANT EXPRESSION OF C-KIT AND DOG-1 IN MUCINOUS AND NON-MUCINOUS COLORECTAL CARCINOMAS AND RELATION TO CLINICOPATHOLOGICAL FEATURES AND PROGNOSIS

Abd Al-Rahman Mohammad Foda, Mie Ali Mohammad
Pathology Department, Faculty of medicine, Mansoura University, Egypt

Introduction: c-KIT and DOG-1 are two highly-expressed proteins in gastrointestinal stromal tumors. It is now well known

that some genes and proteins are aberrantly expressed in colorectal carcinoma (CRC) with relations to prognosis. To the best of our knowledge, c-KIT and DOG-1 were not investigated in large number of CRC cases.

Objectives: This study aims to investigate expression of c-KIT and DOG-1 in colorectal mucinous adenocarcinoma (MA) and non-mucinous adenocarcinoma (NMA).

Methods: We studied tumor tissue specimens from 150 patients with colorectal mucinous (MA) and non-mucinous adenocarcinoma (NMA). High density manual tissue microarrays were constructed using modified mechanical pencil tips technique and immunohistochemistry for c-KIT and DOG-1 was done.

Results: Aberrant c-KIT expression was detected in 12 cases (8%); 6 cases (4%) showed strong expression. Aberrant DOG-1 expression was detected in 15 cases (10%) among them only 4 cases (2.7%) showed strong expression. NMA showed a significantly higher expression of c-KIT, but not DOG-1, than MA. Aberrant c-KIT and DOG-1 expressions were significantly unrelated. All 6 cases (100%) that showed strong c-KIT expression were DOG-1 negative. Similarly, 3 cases that showed strong DOG-1 expression were totally negative for c-KIT, only one case with strong DOG-1 expression showed weak c-KIT expression. c-KIT and DOG-1 expressions were associated with excessive microscopic abscess formation. Neither c-KIT nor DOG-1 expression showed a significant impact on disease-free or overall survival.

Conclusion: Aberrant c-KIT and DOG-1 expression in CRC is a rare event, either in NMA or MA. So, c-KIT and DOG-1 immunostaining is not a cost-effective method of identifying patients with CRC who may benefit from treatment with tyrosine kinase inhibitors.

21. MUCINOUS COLORECTAL ADENOCARCINOMA: RELATION OF GLYPICAN-3 AND E-CADHERIN EXPRESSIONS TO CLINICOPATHOLOGICAL FEATURES AND PROGNOSIS

Abd Al-Rahman Mohammad Foda, Mie Ali Mohammad, Azza Abdel-Aziz, Amira Kamal El-Hawary
Pathology Department, Faculty of Medicine, Mansoura University, Egypt

Introduction: Glypican-3 (GPC3) is a member of the membrane-bound heparin sulfate proteoglycans. E-cadherin is an adhesive receptor that is believed to act as a tumor suppressor gene. Many studies had investigated E-cadherin expression in colorectal carcinoma (CRC) while only one study had investigated GPC3 expression in CRC.

Objectives: This study aims to investigate expression of GPC3 and E-cadherin in colorectal mucinous (MA) and non-mucinous adenocarcinoma (NMA) using manual tissue microarray technique.

Methods: We studied tumor tissue specimens from 150 patients with colorectal mucinous (MA) and non-mucinous adenocarcinoma (NMA). High density manual tissue microarrays were constructed using modified mechanical pencil tips technique and immunohistochemistry for GPC3 and E-cadherin was done. All relations were analyzed using established statistical methodologies.

Results: NMA showed a significantly higher E-cadherin expression than MA. However NMA also showed higher expression of GPC3 than MA, this was not statistically