



**Simposio Internacional:** Estrategias de escape inmunológico del cáncer: implicaciones para la inmunoterapia

**International Symposium:** Cancer Immune Escape: Implications for Immunotherapy

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## **ABSTRACT-.Matthias Kloor**

### **IMMUNOEDITING OF MICROSATELLITE-UNSTABLE COLORECTAL CANCER**

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Colorectal cancer is a heterogeneous tumor type. Whereas the majority of colorectal cancers arise through the classical adenoma-carcinoma sequence and show chromosomal instability, a subset of about 15% of colorectal cancers have a deficient DNA mismatch repair system and accumulate small mutations at repetitive DNA sequences, a phenotype termed high level microsatellite instability (MSI-H). MSI-H colorectal cancers have a distinct histopathological appearance often with poor differentiation and a locally advanced tumor stage. Affected patients have a comparably good prognosis and rarely present with distant metastases; however, resistance towards standard chemotherapy is frequently observed in MSI-H colorectal cancer patients.

A typical feature of MSI-H colorectal cancer is dense infiltration with intratumoral lymphocytes, suggesting that the host's antitumoral immune response plays an important role in this disease. Recent studies have demonstrated that lymphocyte infiltration and immune surveillance are highly relevant for prognosis and potentially for prediction of therapy response in patients with colorectal cancer. MSI-H colorectal cancer represents an ideal model for studying the tumor-immune cell interactions and their significance for the course of the disease.

In the last years, immunologically relevant antigens in MSI-H colorectal cancer have been identified, and much progress has been made towards a better understanding of the host's antigen-specific anti-tumoral immune response. This lecture will provide an overview of the immune response against MSI-H colorectal cancer and its impact on the natural course of the disease as a result of immunoediting and immune escape. Moreover, new diagnostic and therapeutic options that are evaluated in clinical trials will be discussed.

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