

Aberrant Expression of N-Glycolyl GM3 Ganglioside in Hepatocellular Carcinoma

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Case Blog

Representative microphotograph regarding the aberrant expression of N-glycolyl GM3 ganglioside (NeuGcGM3) in hepatocellular carcinoma. The preferential accumulation of NeuGcGM3 in a variety of malignant tumors, when compared with healthy tissues, became this molecule as attractive target for cancer immunotherapy. In the present sample, the expression of NeuGcGM3 was located in both cell membrane and cytoplasm of malignant cells (brown color) (Figure 1). Additionally, a strong expression of this ganglioside in perinuclear areas was evidenced. This fact could be related with the synthesis of NeuGcGM3 in the Golgi apparatus and the posterior

intracellular movement of this molecule within the different subcellular compartments to the plasma membrane. The immunostaining was performed with the 14F7 monoclonal antibody, a highly specific IgG1 against NeuGcGM3. The immunohistochemical detection of NeuGcGM3 allow considering the potential selection of this patient for specific therapy with racotumomab or NGcGM3/VSSP molecular cancer vaccines. Cell nuclei are observed in blue color (Mayer's hematoxylin). White bar=100 μ m.

Acknowledgment

Image acquired in the Research Direction, Center of Molecular Immunology, Havana, Cuba.

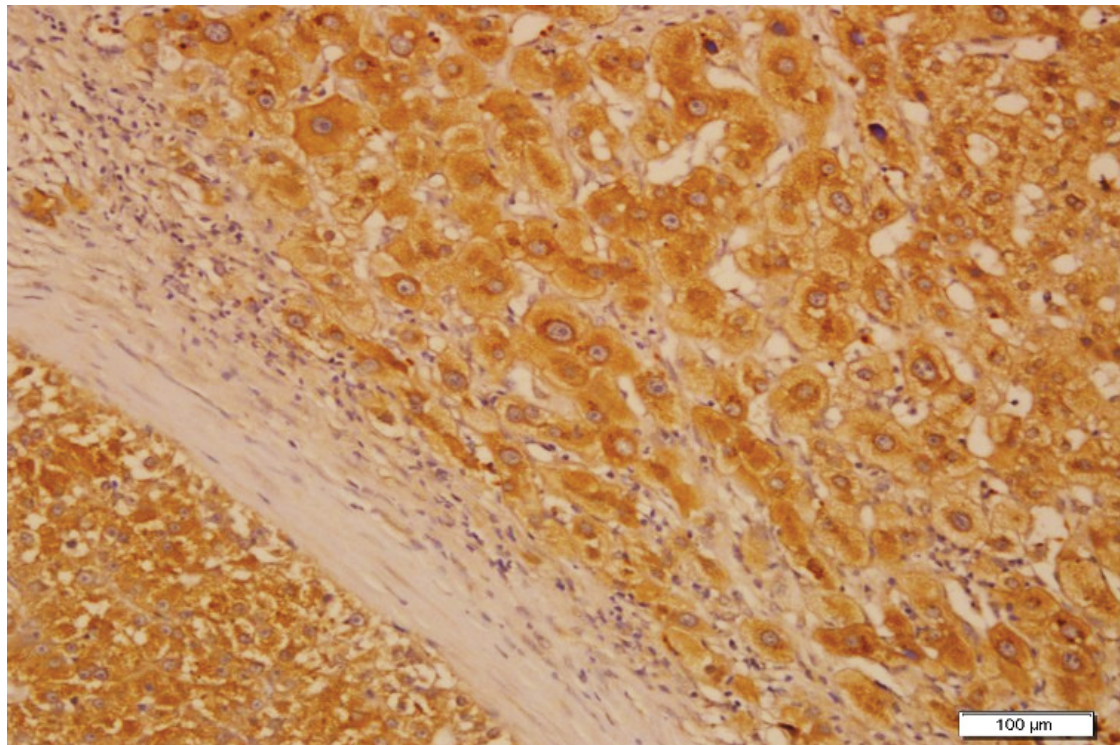


Figure 1: Microphotograph of N-glycolyl GM3 ganglioside in hepatocellular carcinoma.

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