Tumori, 96: 191-197, 2010

Role of somatostatin analogs in the management of neuroendocrine tumors

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ABSTRACT

Neuroendocrine tumors are rare neoplasms. During the last two decades, somatostatin analogs, exerting their activity through both receptor binding and enzymatic inhibition mechanisms, have been a key option in the management of neuroendocrine tumors. The treatment of neuroendocrine tumors with high doses of somatostatin analogs determined high rates of tumor stabilization, but the dose-response of somatostatin analogs on symptomatic relief and stabilization of tumor growth remains unpredictable. Several studies have indicated a higher efficacy of somatostatin analogs in well-differentiated, low-grade malignancy tumors that express a high density of somatostatin receptors. Synthesis of new, more effective molecules, with different pharmacokinetic profiles, receptor affinity and binding stability, will ease the clinician's tasks and improve patient expectancies in terms of survival and quality of life. Further studies are needed to clarify mechanisms underlying the better antiproliferative effect of higher doses of somatostatin analogs and to determine the optimum dose to saturate specific receptor subtypes. **Free full text available at www.tumorionline.it**

Key words: antiproliferative action, high dose, neuroendocrine tumors, somatostatin analogs, treatment.

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Received November 3, 2008;
accepted November 9, 2009.