

Early massive accumulation of In-111 pentetreotide in a metastatic liver tumor of islet cell carcinoma

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A 62-year-old woman was examined with In-111 pentetreotide and Ga-67 citrate. She had undergone an operation to resect a neuroendocrine tumor of the pancreas and still had masses in the liver. One of her hepatic lesions had been biopsied and acinar cell carcinoma was suspected. Fluid in the cyst of the tumor, however, contained a high concentration of gastrin and the tumor was strongly suspected of being a metastasis from the neuroendocrine tumor of the pancreas. The hepatic tumors quickly accumulated In-111 pentetreotide immediately after the injection, but there was no Ga-67 citrate uptake in the tumor. Five months after pentetreotide scintigraphy, her hepatic tumors were resected and histologically proven to be metastasis of islet cell carcinoma. In-111 pentetreotide provides information of the somatostatin-receptor status on the tumor and supports the diagnosis made by hormonal survey.

Key words: neuroendocrine tumor, In-111 pentetreotide, somatostatin, gastrin