Short Communication

111In-pentetreotide SPET/CT in carcinoid tumours: is the role of hybrid systems advantageous in abdominal or thoracic lesions?

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Abstract

Our aim was to evaluate the different clinical value of 111In-pentetreotide hybrid SPET/CT versus SPET alone in detecting carcinoid tumours located in the thoracic and abdominal region. Twenty-four patients with carcinoid tumours histologically proven (13 of abdominal origin, 11 of thoracic origin) underwent 111In-pentetreotide SPET/CT with hybrid system (Millennium VG with Hawkeye, G.E.M.S., USA) composed of a dual head gamma camera equipped with a low dose X-ray tube. Single photon emission tomography images were performed 4h and 24h after 111In-pentetreotide intravenous administration, while SPET/CT co-registered images were performed at 4h. Scintigraphic images were first evaluated alone and then re-interpreted by adding transmission fused data. Nine of the 13 patients with tumours of abdominal origin showed pathological SPET images, while 4/13 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative. Seven out of the 11 patients with tumour of thoracic origin had pathological SPET findings, while 4/11 were negative.

In conclusion, SPET/CT imaging was more useful to anatomically detect carcinoids either in abdomen or in thorax and specifically lesions not expressing somatostatin receptors, as compared to SPET alone.