DETECTION ON NEUROENDOCRINE LUNG TUMOURS BY SOMATOSTATIN RECEPTORS (SSTR2 AND SSTR5): IMPROVING THEIR DIAGNOSIS AND FOLLOW-UP

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Objectives: To study in lung neuroendocrine carcinomas - typical carcinoid (CT), atypical carcinoid (AC) and large cell neuroendocrine carcinoma (LCNC) - the presence of somatostatin receptors (SSTR 2 and SSTR5), to improve the clinical monitoring of patients in order to detect the tumour recurrence.

Methods: Patients undergoing surgery for lung neuroendocrine tumours in the last two years (86 cases in five centres): 53 TC, 25 AC and 8 LCNC. Determination of somatostatin receptors (SSTR2 and SSTR5) in lung neuroendocrine tumoral tissue. Clinical follow-up of patients: thoracoabdominal helicoidal CT and SPECT-CT-111 In-pentetreotide. Periodicity 6, 12 and 24 months analysis of the correlation of findings between the two scans (Chi square and Fisher exact test) and follow-up of patients (tumour recurrence and survival, Kaplan-Meier).

Results: There is no significant correlation between the receptors’ presence and the findings of nuclear medicine (P = 0.53). The absence of somatostatin receptors type 2 (SSTR2) in the tumoral tissue associates a major incident of metastases (P = 0.025). There are no significant differences in the survival of the patients in relation with the presence of both somatostatin receptors in our sample (P = 0.894).

Conclusions: Evaluation of somatostatin receptors SSTR 2 and SSTR5 in tumour tissue could be a useful tool in the assessment of prognosis in these patients. The study in tumour tissue of somatostatin receptors, especially SSTR2, in view of our result, showed importance for diagnosis, treatment and monitoring of patients with neuroendocrine lung tumours.

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