PC005

CHIRURGIE CERVICO-FACIALE ET CANCÉROLOGIE

The value of SPECT-CT in the follow-up of patients with differentiated thyroid carcinoma

Jihène Houas 1, Heyfa Belhadj-Miled 1, Monia Ghammam 1,Habiba Ben Sghaier 1, Malika El Omri 1, Abir Meherzi 1, Mouna Belakhdher 1, Wassim Kermani 1, Mohamed Abdelkefi
Service ORL & Ccf – CHU Farhat Hached, Sousse, Tunisie

Introduction

In the follow-up of differentiated thyroid cancer (DTC), essential tools include iodine- 131 scintigraphic imaging, coupled with cervical ultrasound and thyroglobulin measurement. An additional valuable tool is single-photon emission computed tomography combined with computed tomography (SPECT-CT), which precisely localizes fixation anomalies observed during whole-body scans.

Aim of the study

The aim of our study is to demonstrate, through a case study, the diagnostic contribution of SPECT-CT in identifying mediastinal lymphadenopathy during the follow-up of papillary carcinoma.

methods

Report of a case of regional recurrence of papillary carcinoma of the tthyroid followed up and operated on in our orl department .

Conclusion

SPECT-CT plays a crucial role in studying iodine-131 fixation anomalies in the context of DTC. It enables precise anatomical localization of lesions, enhances the detection of metastases overlooked by whole-body scans, and aids in assessing questionable fixation anomalies.

Results

- A 29-year-old woman
- A comprehensive treatment regimen for papillary thyroid carcinoma
- **Total thyroidectomy + bilateral mediastino-recurrent lymph node dissection + adjuvant radioiodine therapy.**
- pT1bN1bM0.
- Following two courses of 100 mCi radioactive iodine
- **A posttherapeutic scan:** a moderately intense mid-cervical focus of uptake, along with a less intense superior mediastinal focus.
- **The thyroglobulin Tg T4 off:** elevated levels (>500 ng/ml).
- **Hybrid imaging SPECT-CT** focused on the cervicothoracic region provided a more detailed response to the elevated thyroglobulin. The mediastinal focus was identified as a roughly oval-shaped tissue mass measuring 45*32*20 mm lateral to the trachea, causing a mass effect on the pulmonary apex.
- **Surgical exploration** uncovered a 5 cm right mediastinal mass adjacent to the right brachiocephalic trunk.

=> Additional functional right lymph node dissection with excision of the mediastinal mass was performed.

- **The final histopathological examination** confirmed the metastatic nodal nature of the mediastinal lymphadenopathy.

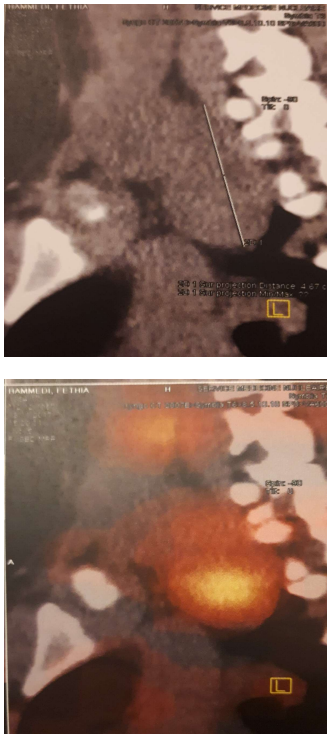

Fig. 1: SPECT-CT IMAGES: CT images (b) and SPECT-CT fusion images (c) in sagittal section show that the focus of hypercaptation in the right laterotracheal 131 represents a tissue mass suggestive of metastatic adenopathy

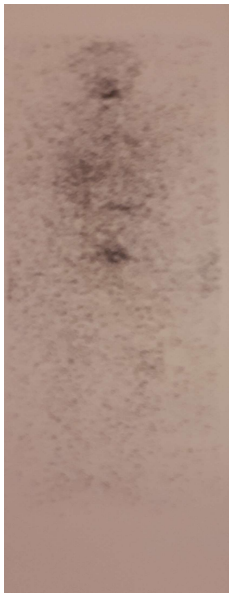

Fig. 2: Whole-body scan: focus of moderate cervical fixation