Interesting images

Nasoalveolar cyst as a cause of false positive result in post-therapy $^{131}$I whole body scintigraphy

Quiste nasoalveolar como falso positivo en el rastreo corporal total tras dosis ablativa de $^{131}$I

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We present the case of a 72-year-old male who underwent thyroidectomy for encapsulated follicular carcinoma (3.5 cm × 3 cm) in the left thyroid lobe and was referred to the Department of Nuclear Medicine for ablation of thyroid remnants. On administration of $^{131}$I (3700 MBq) the TSH value was 63.8 IU/ml, thyroglobulin 0.4 ng/ml and antithyroglobulin antibodies 25.70 U/ml.

In the whole body scan (WBS) performed 8 days later two small cervical focal uptakes were observed compatible with thyroid remnants and another deposit was found above these (Fig. 1). To better localize the latter deposit head and neck SPECT-CT was carried out showing that the abnormal uptake was situated in a lesion of the right nasal fossa (Fig. 2) which was clinically, radiologically (Fig. 3) and anatomopathologically diagnosed as a nasoalveolar cyst.

Nasoalveolar cysts are lesions of embryonic origin which are non-odontogenic and are localized in the anterior maxillary vestibulum. The origin of these cysts is found in the remnants of the inferior and anterior portions of the nasolacrimal duct. Clinically they are painless swelling, generally unilateral, most of which appear in the 4th and 5th decades of life, mainly in females.1,2 Radiologically these cysts are deep soft tissue, extraosseous lesions, although they are rounded, well delimited and adjacent to the anterior lamina of the upper maxilla.1

Multiple causes have been described for false positive results in the WBS with $^{131}$I. Since the incorporation of the routine practice of SPECT-CT studies, the diagnosis and characterization of these false positive results has significantly improved, with their contribution having recently been reported in the case of a nasolacrimal cyst.3 We agree that SPECT-CT allows more precise evaluation of the focal of uptake, improving its localization. Indeed, in our case, and in that of Mulazimoglu et al.,3 this technique was shown to be able to exclude other more common causes of uptake such as bone metastasis, nasal secretion, and cutaneous contamination.


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Fig. 2. Fusion images (A) SPECT with $^{131}$I (B) and CT (C) showing the abnormal focal uptake located in a lesion in the right nasal fossa.

Fig. 3. CT without contrast discovered a dense, rounded, well defined, soft tissue lesion in the right nasal fossa.

References