SPECT-CT and Planar Image of Incidental Struma Ovarii through I-131 Whole-Body Scan in Follow-up of Well-Differentiated Thyroid Cancer

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Clinical Image

A 47-year-old female underwent total thyroidectomy for papillary thyroid cancer. Subsequently, 120 mCi of I-131 therapy was administered. Stimulated thyroglobulin (sTg) at 10 months after the initial I-131 therapy showed a persistent elevated sTg level at 16 ng/ml. Thereby, a second treatment of 100 mCi I-131 was administered [1]. The post-therapeutic I-131 whole-body scan showed abnormal radioiodine accumulation at the medial left pelvis (red arrow) which was localized by SPECT-CT.
at the left ovary. She underwent laparoscopic left oophorectomy with a pathology report of a benign follicular thyroid adenoma [2]. I-131 uptake in the mouth (pink, blue arrows) was localized by SPECT-CT in the teeth (not shown here). Mild homogeneous accumulation in the liver (black arrow) is considered physiologic [3]. The left ovary uptake (struma ovarii) is the only focus of the multiple foci demonstrated on the post-therapeutic I-131 scan that could possibly account for the elevated Tg level in this case (Figure 1,2).

References