

갑상선암 환자에서 관찰된 뇌수막종의 위양성 옥소 섭취

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False-positive I-131 Uptake in Meningioma

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We experienced a case with meningioma showing false positive I-131 uptake. A 55-years old female patient underwent high dose (150 mCi) radioactive iodine therapy to ablate remnant tissue after total thyroidectomy for papillary thyroid cancer. In addition to intense tracer uptake in thyroid bed, there was mild but focal abnormal uptake in left frontal lobe of the brain on post-therapy I-131 whole body scan. Subsequent brain MR imaging showed single mass lesion in left frontal lobe and the mass was resected under the impression of brain metastasis of thyroid carcinoma. Pathologic report confirmed meningioma from the surgical specimen. (Korean J Nucl Med 38(3):272-273, 2004)

Key Words: I-131 whole body scan, Brain meningioma

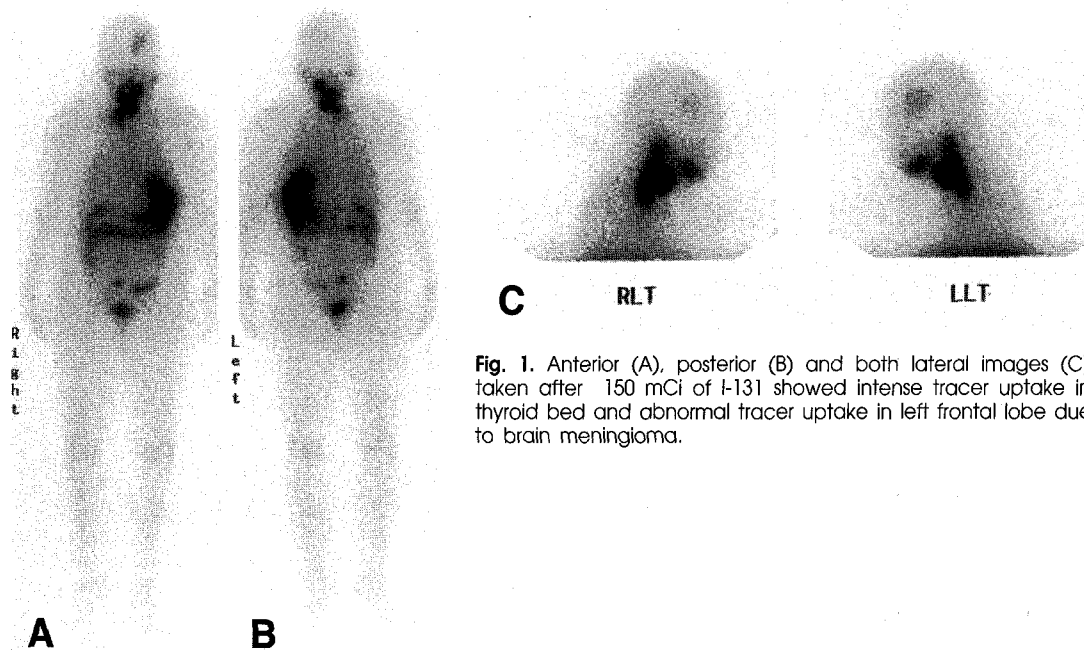


Fig. 1. Anterior (A), posterior (B) and both lateral images (C) taken after 150 mCi of I-131 showed intense tracer uptake in thyroid bed and abnormal tracer uptake in left frontal lobe due to brain meningioma.

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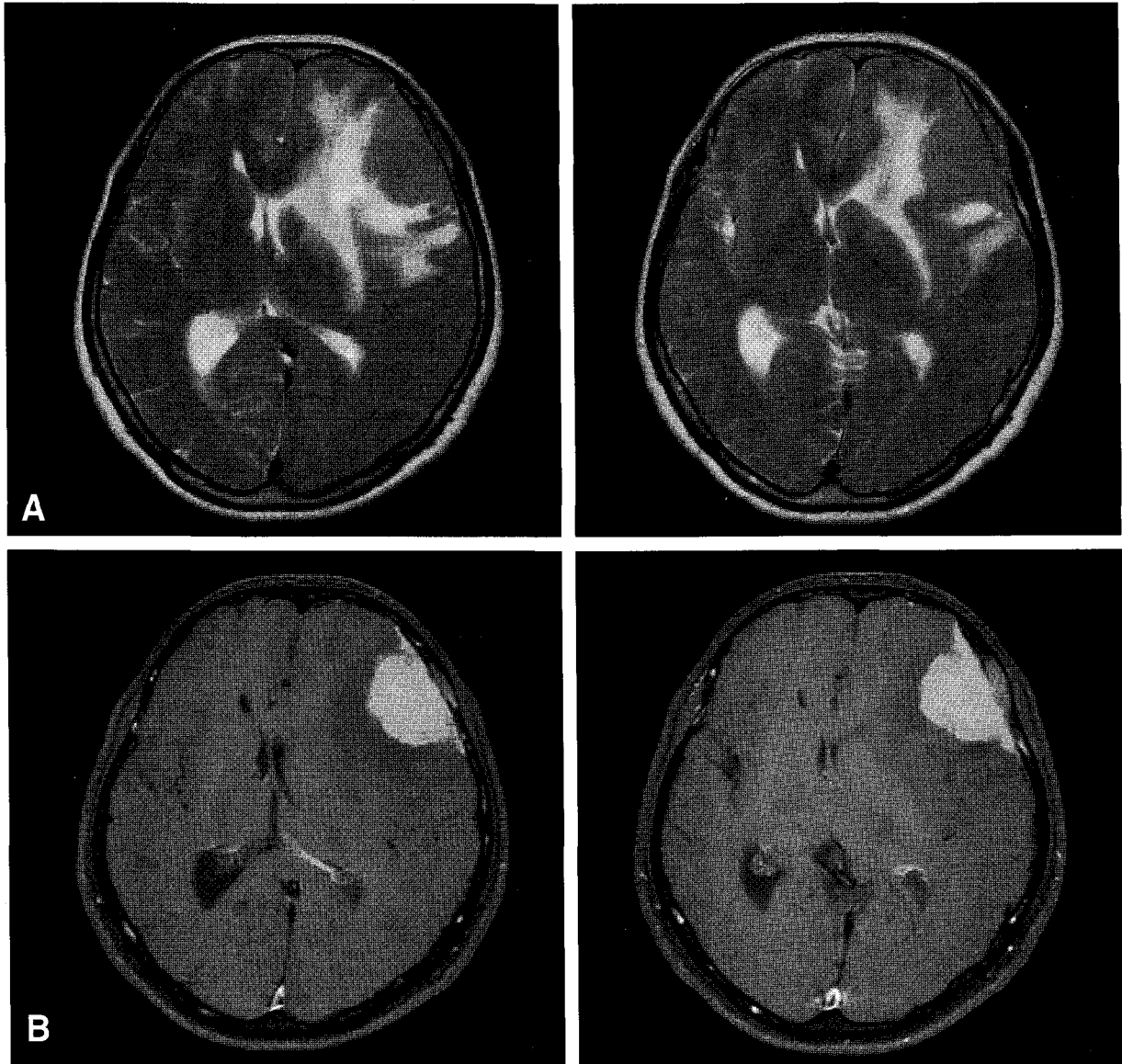


Fig. 2. Axial T2-weighted (A) and gadolinium enhanced T1- weighted (B) images demonstrated a large round tumor mass in left inferior frontal lobe with its base on the anterior dura of the left frontal bone. (A) T2-weighted images demonstrated slightly hyperintense tumor relative to gray matter and compressed anterior horn of left lateral ventricle. (B) Following intravenous administration of gadolinium, an axial T1-weighted image demonstrated intense homogeneous contrast enhancement of this large dural based tumor.

References

1. Preisman RA, Halpern SA, Shishido R, Waltz T, Callipari F, Reit R. Uptake of ^{131}I by a papillary meningioma. *Am J Roentgenol* 1977; 129:349-50.
2. Shapiro B, Rufini VR, Jarwan A, Geatti O, Kearfott KJ, Fig LM, et al. Artifacts, anatomical and physiological variants, and unrelated disease that might cause false-positive whole body I-131 scans in patients with thyroid cancer. *Semin Nucl Med* 2000;30:115-32.
3. McDougall JR. Whole-body scintigraphy with radioiodine-131. A comprehensive list of false-positives with some examples. *Clin Nucl Med* 1995;20:869-75.
4. Carlisle MR, Lu C, McDougall IR. The interpretation of ^{131}I scans in the evaluation of thyroid cancer, with an emphasis on false positive findings. *Nucl Med Commun* 2003;24:715-35.
5. Mitchell G, Pratt BE, Vini L, McCready VR, Harmer CL. False positive ^{131}I whole body scans in thyroid cancer. *Br J Radiol* 2000;73:627-35.
6. Langsteger W, Koltringer P, Meister E. False-positive scans in papillary thyroid carcinoma. *J Nucl Med* 1993;34:2280.