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Thyroid imaging in a typical case of acute suppurative thyroiditis with abscess formation due to infection from a persistent thyroglossal duct

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The clinical evaluation of thyroid imaging with ^{99m}Tc, ²⁰¹Tl, and ⁶⁷Ga in the uncommon, but potentially serious, disorder of acute suppurative thyroiditis (AST) with abscess formation due to infection from a persistent thyroglossal duct is reported. The ^{99m}Tc image showed functioning areas of the diseased thyroid gland and the ²⁰¹Tl image demonstrated abscess formation in the thyroid gland of this patient. In addition, marked ⁶⁷Ga accumulation was demonstrated in a wide area covering not only the area of the thyroid gland involved, but also associated circumferential inflammatory lesions in a patient with AST. The net thyroid uptake of ⁶⁷Ga at 72 hours was calculated to be 13.8% of the injected dose.

Key words: acute suppurative thyroiditis, thyroid imaging, 67Ga, 201Tl, 99mTc