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, $^{201}$TI, and $^{67}$Ga 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 $^{201}$TI image demonstrated abscess formation in the thyroid gland of this patient. In addition, marked $^{67}$Ga 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 $^{67}$Ga at 72 hours was calculated to be 13.8% of the injected dose.

**Key words:** acute suppurative thyroiditis, thyroid imaging, $^{67}$Ga, $^{201}$TI, $^{99m}$Tc