

AMIODARONE

Diagnosing amiodarone-induced thyrotoxicosis (AIT)

It is important to determine the cause of AIT as the treatments are different. Type 1 AIT requires suppression of thyroid hormone production, while type 2 AIT is self-limited.

Radioiodine is typically not useful in distinguishing between the two causes due to the very high levels of iodine associated with amiodarone therapy. This blocks RAI uptake, regardless of cause. However, sometimes you get some uptake with type 1 AIT.

Clinically, type 1 AIT is more likely if the patient has thyroid nodules or positive TSH-receptor Ab. Increased vascularity on ultrasound is also associated with type 1 AIT.

Type 2 AIT is more likely in a normal thyroid gland, and may show increase in IL-6 levels, associated with the underlying inflammation.

	AIT1	AIT2
Abnormal thyroid	Present	Absent
RAI uptake	Low, normal, or high	Low
Ultrasound	Increased vascularity	Absent vascularity
TSH-R Ab	+ if Graves	Negative
IL-6	Low	Increased

Further reading

Bogazzi F, Bartalena L and Martino E. Approach to the patient with amiodarone induced thyrotoxicosis. *J Clin Endocrinol Metab.* 2010. 95(6):2529–2535.