Title

Radiofrequency Thyroid Ablation: A Review and Imaging Considerations for the Interventional Radiologist

Abstract

Thyroid radiofrequency ablation is a minimally invasive procedure that can be used to treat patients with benign thyroid nodules as an alternative to thyroidectomy or radioactive iodine. The procedure is commonly performed with local lidocaine or minimal/moderate sedation and has a minimal risk profile and few side effects. The efficacy of thyroid RFA has been well documented in the literature, with a volume reduction rate of 67-75% at one year[1]. This article reviews the procedure, focusing on the relevant pre-procedural, procedural, and post-procedural imaging.

Keywords

Thyroid radiofrequency ablation, hyperfunctioning thyroid nodule, thyroid fine needle aspiration, TI-RADS (Thyroid Imaging Reporting & Data System)

Images

-Nodules

-Benign characteristics

-1) Isoechoic spongiform nodule

-2) Partially cystic nodules with intracystic comet tail artifact

-3) AFTN with I123

-Perithyroidal lidocaine

-Hydrodissection

- Cyst Aspiration

-Moving shot technique

- Vascular first ablation

-Artery

-Vein

-Complications

-Hematoma

-Rupture

-Marginal regrowth

-Pre, 3 month, 6 month, 1 year size decrease

-Post evaluation with elastography or CEUS