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Abstract

Radiofrequency Ablation of Benign Thyroid Nodules: Initial Clinical Experience in Iran

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Abstract

Prevalence of thyroid nodules diagnosed by ultrasonography has been reported to be high (about 50%) probably due to iodine deficiency in our region. Most thyroid nodules benign but some require treatment for cosmetic reasons or subjective symptoms. The conventional method of treatment in Iran is surgery. For the first time in Iran, from February 2016, 50 patients with 63 nodules (solid or cystic) were successfully treated by radiofrequency (RF) ablation. The procedure was performed under local anesthesia with no need for hospitalization. At one and three months post-ablation follow ups 40% to 67% reduction in nodule volume was observed. No hormone imbalance or voice changes were seen in none of the patients. Indication of RF ablation includes benign confirmed nodules (at least 2 times Fine needle aspiration or biopsy) neck pain, dysphasia, foreign body sensation, discomfort, cough, cosmetic problems, or thyrotoxicosis in cases of autonomously functioning thyroid nodules (AFTNs). Compared with surgery, RF ablation as a minimally invasive approach provided significantly lower rate of complications regarding thyroid function which well-maintained after procedure also no external scar was formed. Pain and inflammation during the first 3 to 7 days after RF ablation and long term treatment results (1 to 6 months) are of disadvantages. We recommend RF ablation to be considered as possibly the first-line treatment for benign thyroid nodules. Disclosure: Nothing to disclose.

Keywords: Thyroid Nodule, Radio Frequency, Ablation, Iran, RF

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