Bipolar radiofrequency volumetric tissue reduction of the inferior turbinate (BRVTR), how I do it and how many times do I have to do it?…?

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Recommended Citation
Atef A. Bipolar radiofrequency volumetric tissue reduction of the inferior turbinate (BRVTR), how I do it and how many times do I have to do it?…?. Pan Arab J. Rhinol. 2012; 2012; 2 : -.
Available at: https://pajr.researchcommons.org/journal/vol2/iss2/2

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Bipolar radiofrequency volumetric tissue reduction of the inferior turbinate (BRVTR), how I do it and how many times do I have to do it....?

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BRVTR Technique is based on local submucosal delivery of low frequency energy by means of special probes causing ion agitation inside the tissues. This leads to submucosal low-temperature (40-70°C) lesion with intact mucosa, subsequently healing of this thermal lesion induces fibrosis with wound contraction and turbinate reduction. The RF current does not pass directly through the tissues during the probing process, so tissue heating is minimal. The result is volumetric removal of the target tissue with minimal damage to surrounding healthy tissues.

INDICATIONS
Allergic or non-allergic hypertrophy of inferior turbinates causing nasal obstruction (Fig 1).

CONTRAINDICATIONS
Septal deviation, adenoids or chronic polypoidal sinusitis
Pediatric cases
Neurotic patients
Bleeding disorders
Cardiac patients

INSTRUMENT
Bipolar radiofrequency energy was delivered by ENTEC Coblator plasma surgery system (Arthrocare Corp., Sunnyvale, CA). We used the coblation probe (wand 45).

TECHNIQUE
1. **Setting:** OR with full monitoring.
2. **Position:** Reverse Trendlberge with 45° head up-position.
3. **Anaesthesia:** start with Surface anesthesia using (Lidocain spray 10 mg/ dose) followed by infiltration anesthesia by Injecting 7-8 ml Lidocaine 10mg/ml using 24 gauge needle in the inferior Turbinate into the same wand channels. We avoid using epinephrine in the injecting solution. Sedation may or may not be used according to situation.

4. **Procedure:-**
   a) We used the coblation probe (wand 45) after placing small amount of saline gel on its tip, the coblation controller unit was activated to a power between 5 and 6 (this the maximum power in this machine).
   b) 4 passages were done in the turbinate (Fig 2):
      - Each channel should be in the depth of turbinate away from surface and lasts 10-12 seconds.
      - The patient should receive 3 radiofrequency sessions 6 weeks apart. Even though improvement occurred after one session to maintain 2 year completer relief from nasal obstruction.

5. **Follow up:** Patient was discharged after 30 minutes and followed up after a week and only a mild anti-inflammatory is prescribed in the first few days to decrease the self-resolving edema.

For further readings kindly refer to:

Bipolar radiofrequency volumetric tissue reduction of inferior turbinate: does the number of treatment sessions influence the final outcome?