COOLIEF* COOLED RF: ULTRASOUND AND FLUOROSCOPIC-GUIDED KNEE TECHNIQUES OVERVIEW

For longer-lasting relief of osteoarthritis knee pain

Final Probe Placement Using Ultrasound

Superior Medial  Suprapatellar  Superior Lateral  Inferior Medial

Final Probe Placement Using Fluoroscopy

Superior Medial  Suprapatellar  Superior Lateral  Inferior Medial

GET YOUR PATIENTS BACK TO THE THINGS THAT MATTER.

Learn more about how COOLIEF* Cooled RF can fit into your treatment algorithm for chronic OA knee patients. CooliefForOrthos.com

References:
2. Halyard Health Inc. sponsored study: A Prospective, Multi-Center, Randomized, Clinical Trial Evaluating the Safety and Effectiveness of Using COOLIEF™ Cooled Radiofrequency Probe to Create Lesions of the Genicular Nerves and Comparing Corticosteroid Injection in the Management of Knee Pain. Final results 03Apr2017. Study available upon request from Avanos.

*Registered Trademark or Trademark of Avanos Medical, Inc., or its affiliates. © 2019 AVNS. All rights reserved.

AVANOS
avanospainmanagement.com
The COOLIEF* Cooled Radiofrequency Generator transmits a small current of RF energy through an insulated electrode placed within the knee’s tissue. The electrode delivers water-cooled energy through RF electrodes. This RF energy creates a targeted lesion that ablates and deactivates the sensory nerves responsible for sending pain signals to the brain, while leaving motor nerves intact to preserve function.

**How COOLIEF* Cooled Radiofrequency (RF) Works**

1. The COOLIEF* Cooled Radiofrequency Generator transmits a small current of RF energy through an insulated electrode placed within the knee’s tissue.
2. The electrode delivers water-cooled energy through RF electrodes.
3. This RF energy creates a targeted lesion that ablates and deactivates the sensory nerves responsible for sending pain signals to the brain, while leaving motor nerves intact to preserve function.

**Indication for Use**

The COOLIEF* Cooled Radiofrequency Probe is to be used in conjunction with a radiofrequency generator to create lesions in nervous tissue. It is intended for use in Radiofrequency (RF) heat lesion procedures for relief of pain and includes a fluid delivery system for commonly used fluid agents limited to contrast medium, saline, and/or anesthetic solution delivery at the target site.

This device is also indicated for creating radiofrequency lesions of the genicular nerves for the management of moderate to severe knee pain of more than 6 months with conservative therapy, including medication, in patients with radiologically-confirmed osteoarthritis (grade 2-4) and a positive response (≥ 50% reduction in pain) to a diagnostic genicular nerve block.

**Patient Selection Considerations**

**Diagnosis**

- Radiologically confirmed grades 2-4 osteoarthritis
- Moderate to severe knee pain > 6 months, and no longer adequately managed by conservative therapy
- Greater than 50% pain relief from a single block of the genicular nerves (no more than 0.5 - 10 ml injectate per block)

**Indication for Use**

- Use of COOLIEF* Cooled RF: Ultrasound and Fluoroscopic-Guided Knee Techniques Overview

**COOLIEF* Cooled RF Technique**

- Utilize 4mm active tip
- Use same positioning and targets as the diagnostic blocks
- Remove stylet, insert probe and stimulate each genicular nerve branch at 2 Hz up to 1-2 volt searching for any lower extremity motor activity
- If no motor response is observed, inject local anesthetic prior to lesioning, allow adequate time for the anesthetic to disperse
- Radiofrequency lesioning at COOLIEF* Cooled RF Default Settings for 2:30 min at each site

**Ultrasound Technique: Top Takeaways**

- Placement Target Priority: Nerve>Vessel>Bone
- Energy dissipation from lesioning causes artifacts on ultrasound
- Beware of effusions – consider burning the nerve proximal to the effusion or aspirating the effusion before the procedure is performed
- An additional lesion can be considered if two genicular arteries are present or the anatomy is poorly defined
- Angled approach for very thin patients to better support probe
- Ensure diagnostic block is no more than 0.5 - 1 mL