Pain Medicine, 23(3), 2022, 603–604
doi: 10.1093/pm/pnab330
Advance Access Publication Date: 24 November 2021
Letter to the Editor

Correcting the Nomenclature of Medial Branch Neurotomy to Medial Branch Coagulation

Patrick H. Waring , MD,* Milton H. Landers , DO, PhD,† and Nikolai Bogduk , MD, PhD‡

*Pain Intervention Center, Metairie, Louisiana, USA; †Kansas Spine Institute, Wichita, Kansas, USA; ‡The University of Newcastle, Newcastle, South Wales, Australia

Funding source: There is no funding source for the Letter.

Conflict of interest: There are no conflicts of interest to report.

Received on 2 November 2021; revised on 14 November 2021; Accepted on 15 November 2021

Dear Editor,

Cervical medial branch radiofrequency neurotomy and its lumbar counterpart are established, effective treatments for neck pain and back pain mediated by medial branches of the dorsal rami [1, 2]. Although the Spine Intervention Society refers to the procedure as a "medial branch radiofrequency neurotomy" [3], others use terms such as "rhizotomy" or "ablation" [4]. However, all these names are wrong.

The term "neurotomy" is erroneous for two reasons. Foremost, the suffix "otomy" means surgical incision of a structure (typically to "open" it) as in "laparotomy or craniotomy" [5], but in medial branch neurotomy the nerve is neither incised nor opened. Also, the prefix "neuro" means "nerve," but the term "medial branch" already denotes a nerve. So, medial branch neurotomy literally means "nerve nerve cutting," which is redundant. "Rhizotomy" originates from the Greek "rhiz" which means "root," but no nerve root is the target for this procedure, and no nerve root is surgically incised or opened [5, 6]. Therefore, "rhizotomy" is a misnomer on both counts. "Ablation" indicates the complete removal or extinction of a specific tissue such as endometrium or cardiac conductive tissue [6]. Upon hearing this name, patients might be led to believe that, because the nerve is gone, their pain cannot return, yet the opposite is the case. The nerve that is treated is only coagulated; it can regenerate, and pain can be expected to return. So, the term radiofrequency "ablation" is not an accurate description of the procedure.

Fortunately, there is another term—"radiofrequency coagulation"—that describes the objective of the procedure. "Coagulation" indicates that heat is used to "convert a fluid or a substance in solution into a gel" [5]. Therefore, the nerve is not destroyed, removed, or eradicated by exposure to radiofrequency energy; it is only incapacitated and retains the ability to regenerate over many months.

Insistence on proper procedural names is not pedantry but the hallmark of professionalism. Our patients and others should expect that we will be as precise in our nomenclature as we are in the performance of the procedure itself.

We hope that the Spine Intervention Society might choose to refer to "radiofrequency neurotomy" as "radiofrequency coagulation" in future publications, and that all physicians who use these procedures will follow suit.

References

1. Engel A, King W, Schneider B, Duszynski B, Bogduk N. The effectiveness of cervical medial branch thermal radiofrequency neurotomy stratified by selection criteria: A systematic review of the literature. Pain Med 2020;21(11):2726–37.
2. Schneider B, Doan L, Maes M, Martinez K, Gonzalez-Cota A, Bogduk N; Standards Division of the Spine Intervention Society. Systematic review of the effectiveness of lumbar medial branch thermal radiofrequency neurotomy, stratified for diagnostic methods and procedural technique. Pain Med 2020;21(6):1122–41.

3. Bogduk N, ed. International Spine Intervention Society, Practice Guidelines for Spinal Diagnostic and Treatment Procedures, 2nd edition. San Francisco, CA: International Spine Intervention Society; 2013.
4. Cohen S, Bhaskar A, Bhatia A, et al. Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. Reg Anesth Pain Med 2020;45 (6):424–67.
5. Law J, Martin E, eds. Oxford Concise Medical Dictionary, 10th edition. Oxford, UK: Oxford University Press; 2020.
6. Stedman's Medical Dictionary, 28th edition. Baltimore, MD: Lippincott, Williams, and Wilkins; 2006.

Pain Medicine, 23(3), 2022, 604–606
doi: 10.1093/pm/pnab335
Advance Access Publication Date: 26 November 2021
Letter to the Editor

A Letter to the Editor Regarding Genicular Nerve Radiofrequency Ablation for the Treatment of the Painful Primary Total Knee Arthroplasty

Joshua Rainey, MD,* Scott Miller, MD,† Aaron Conger, DO,‡ Lucas Anderson, MD,* and Zachary McCormick, MD‡

*Department of Orthopedic Surgery, University of Utah Health Hospitals and Clinics, Salt Lake City, Utah, USA; †Department of Physical Medicine and Rehabilitation, Vanderbilt University School of Medicine, Nashville, Tennessee, USA; ‡Department of Physical Medicine and Rehabilitation, The University of Utah School of Medicine, Salt Lake City, Utah, USA

Funding sources: No funding was received.

Conflicts of interest: There are no conflicts of interest to report.

Received on 7 November 2021; revised on 16 November 2021; Accepted on 16 November2021

Dear Editor,

Total knee arthroplasty (TKA) is an effective and frequently performed surgery for knee osteoarthritis (OA). By 2030, 3 million annual surgeries are projected in the United States alone [1]. However, nearly 20% of patients report continued pain and dissatisfaction after TKA, which will equate to about 600,000 patients annually by 2030 based upon TKA projections [2]. Genicular nerve radiofrequency ablation (RFA) has recently emerged as a treatment option for native knee OA and for patients with persistent post-TKA pain with limited therapeutic options [3, 4].

Genicular RFA decreases nociception through thermal coagulation of terminal articular branches of nerves that innervate the anteromedial and anterolateral joint capsule of the knee [5]. Although rare, third degree skin burn, hemarthrosis, septic arthritis, and pes anserine tendon injury have all been reported as complications associated with genicular nerve RFA [6, 7]. There has also been a case report of a periprosthetic joint infection (PJI) following genicular RFA for post-TKA pain [8]. Although genicular RFA appears relatively safe, other causes of post-TKA pain must be evaluated prior to considering this treatment, as genicular nerve RFA does not address potentially curative or modifiable etiologies of post-TKA pain. In the following letter, we briefly describe these etiologies, related diagnostic considerations, and encourage the pain medicine and musculoskeletal community to remain attentive to these conditions before offering genicular nerve RFA for the treatment of post-TKA pain.

The differential diagnosis of post-TKA pain can be organized into those either intrinsic or extrinsic to the knee. Relatively common intrinsic causes of post-TKA pain include infection, aseptic loosening, component overhang or malalignment, ligamentous instability, patella-generated pain, such as maltracking or patellar clunk syndrome (painful "clunks" from fibrous tissue at the patellofemoral articulation), loose bodies, polyethylene wear (prosthetic surface wear), arthrofibrosis, trunionosis (corrosion and wear of the junctions in a modular