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OXFORD

Differing Philosophical Approaches to Treating Patients

Dear Editor,

We appreciate that Manchikanti et al. carefully read our review of cervical medial branch thermal radiofrequency neurotomy (CMBTRFN) [1]. Their detailed letter [2] highlights important differences in methodology and philosophical approach to patient care, which we shall address.

With respect to methodology, Manchikanti et al. titled their letter “Systematic Review of Cervical Medial Branch Thermal Radiofrequency Neurotomy is not Based on Peer Review Published Methodology.” They point out that our review [1] neither meets the Institute of Medicine’s (IOM) standard nor uses the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) [2]; but these are not the only standards or tools. Our review of CMBTRFN was completed in accordance with the Grades of Recommendation, Assessment, Development, and Evaluation (GRADE)

system. Of course, GRADE has been widely published and subject to extensive peer-review [3–18], and is the preferred methodology of the Centers for Disease Control (CDC) [19,20]. It allows for a transparent review of all relevant literature, not just randomized controlled trials, which is a flaw with some traditional reviews.

With respect to philosophic approach to patient care, where our review differs from the demands of Manchikanti et al. is in the criteria for including studies. As declared in our review, the objective was to review the literature that complied with the recommended standards of diagnosis and the appropriate matching outcomes.

We included studies in which patients were selected on the basis of complete relief of pain following controlled diagnostic blocks. These criteria fully and properly comply with the paradigm of diagnostic blocks [21]. Complete relief of pain indicates that the source of pain has been

correctly and fully identified. Partial relief from diagnostic blocks cannot be interpreted validly. Partial relief might mean the patient is uncertain about the effect, or that there is some other source of pain. The latter is totally speculative unless and until that other source is identified. Most importantly, partial relief implies that complete relief of pain cannot be expected from radiofrequency neurotomy because the unknown source of remaining pain is not treated. Consequently, if partial relief is considered acceptable in the diagnostic phase, the patient is destined for incomplete relief from treatment.

Complete relief of pain after treatment complies with the proper paradigm of radiofrequency neurotomy. If the source of pain has been identified accurately and that source is treated using correct technique, the patient should have complete relief of pain, whereupon their function is restored, and they require no other health care for that pain. No one has shown that partial relief of pain restores function, eliminates the need for other health care, and thereby reduces the burden of illness. Partial relief is at best questionable and at worst inconsequential.

Under these conditions, our review found there is ample literature to show that, if strict diagnostic criteria are satisfied and if correct technique is used, optimal outcomes are achieved: complete relief of pain, restoration of function, and no need for other health care.

The literature that Manchikanti et al. claim we ignored was not ignored; it was not included because it did not meet our inclusion criteria for strict diagnosis, technique, or reporting meaningful outcomes. However, if we consider that literature, post hoc, it reinforces our conclusion rather than refuting it.

Sapir and Gorup selected patients on the basis of 80% relief from comparative blocks, which might be an arguably acceptable criterion, but they used a dated operative technique that has not been validated. Their success rate, for complete relief of pain was no better than one in six patients at 6 months, which deteriorated to one in 15 patients at 1 year [22].

Speldewinde used the same selection criteria, but used correct technique. At best, 39% of patients had complete pain relief of unknown duration post CMBTRFN. It is unclear if any patients had complete pain relief at 1 year [23].

The picture that emerges is clear. When lesser diagnostic criteria have been used, or when unproven operative techniques have been used, either the literature is of poor quality with no compelling data, or it shows that outcomes are far less than optimal. Consequently, the conclusions of our review stand: when stratified for strict diagnostic criteria and correct operative technique, the literature shows that optimal outcomes can be achieved by cervical radiofrequency thermal medial branch neurotomy.

ANDREW ENGEL, GEORGE RAPPARD,
WADE KING, and DAVID KENNEDY

**Affordable Pain Management, Chicago, Illinois; †Los Angeles Minimally Invasive Spine Institute, California; ‡Pendlebury Clinic, Pain Management; §Department of Orthopaedics, Stanford University, Redwood City, California*

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