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Consensus practice guidelines on interventions for cervical spine (facet) joint pain from a multispecialty international working group

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ABSTRACT

Background The past two decades have witnessed a surge in the use of cervical spine joint procedures including joint injections, nerve blocks and radiofrequency ablation to treat chronic neck pain, yet many aspects of the procedures remain controversial.

Methods In August 2020, the American Society of Regional Anesthesia and Pain Medicine and the American Academy of Pain Medicine approved and charged the Cervical Joint Working Group to develop neck pain guidelines. Eighteen stakeholder societies were identified, and formal request-for-participation and member nomination letters were sent to those organizations. Participating entities selected panel members and an ad hoc steering committee selected preliminary questions, which were then revised by the full committee. Each question was assigned to a module composed of 4–5 members, who worked with the Subcommittee Lead and the Committee Chairs on preliminary versions, which were sent to the full committee after revisions. We used a modified Delphi method whereby the questions were sent to the committee en bloc and comments were returned in a non-blinded fashion to the Chairs, who incorporated the comments and sent out revised versions until consensus was reached. Before commencing, it was agreed that a recommendation would be noted with >50% agreement among committee members, but a consensus recommendation would require ≥75% agreement.

Results Twenty questions were selected, with 100% consensus achieved in committee on 17 topics. Among participating organizations, 14 of 15 that voted approved or supported the guidelines en bloc, with 14 questions being approved with no dissensions or abstentions. Specific questions addressed included the value of clinical presentation and imaging in selecting patients for procedures, whether conservative treatment should be used before injections, whether imaging is necessary for blocks, diagnostic and prognostic value of medial branch blocks and intra-articular joint injections, the effects of sedation and injectate volume on validity, whether facet blocks have therapeutic value, what the ideal cut-off value is for designating a block as positive, how many blocks should be performed before radiofrequency ablation, the orientation of electrodes, whether larger

lesions translate into higher success rates, whether stimulation should be used before radiofrequency ablation, how best to mitigate complication risks, if different standards should be applied to clinical practice and trials, and the indications for repeating radiofrequency ablation.

Conclusions Cervical medial branch radiofrequency ablation may provide benefit to well-selected individuals, with medial branch blocks being more predictive than intra-articular injections. More stringent selection criteria are likely to improve denervation outcomes, but at the expense of false-negatives (ie, lower overall success rate). Clinical trials should be tailored based on objectives, and selection criteria for some may be more stringent than what is ideal in clinical practice.

INTRODUCTION

There are few subjects in interventional pain and spine medicine as controversial as the diagnosis, etiology, and treatment of neck pain. Neck and posterior head pain have a high prevalence rate in both developed and undeveloped regions, being particularly common in the USA, Western Europe, East Asia, Northern Africa, and the Middle East.¹ A systematic review estimated the annual and lifetime prevalence rates to be 37.2% (range 16.7–75.1%), and 48.5% (range 14.2–71%), respectively.² According to the Global Burden of Disease 2016 study, spine pain (including neck and low back) is the most common cause of disability in North America and globally for people 25–64 years of age.³ Age is positively related to the risk of neck pain, obesity is probably unrelated, and women are more likely to experience neck pain.^{1,4} When prevalence is broken down by spine joint or segment, the cited frequency of atlanto-axial (AA) joint pain ranges from as low as 16% to as high as 60% in patients with suspected cervicogenic headaches.⁵ Cervical facet (also known as zygapophysial or zygapophyseal) joints are considered to be the primary source of pain in 26–70% of patients with chronic neck pain^{6–9} and 54–60% of neck pain following whiplash injury.^{10–12} The C2–3 and C5–6 joints are the most common clinically implicated levels