

Earlier literature provided evidence of neck pain relief *via* cervical trigger point injections with anesthetic agents. However, recent evidence suggests that intramuscular or paraspinal cervical injections with local anesthetic may provide relief for various types of headaches and orofacial pain as well. The primary purpose of this systematic review was to determine whether a cohort of retrospective case studies and randomized controlled trials using paraspinal cervical or intramuscular anesthetic injections were associated with a decrease in headache and orofacial pain.

A systematic review of the literature was performed to observe the association between headache or orofacial pain relief and paraspinal cervical injections with various pain-relieving agents. Literature searches using the key terms “*headaches*”, “*paraspinal cervical injections*”, “*neck/intramuscular injections*” and “*orofacial pain*” were performed in PubMed, Google Scholar, and Scopus. We implemented the preferred reporting items for systematic reviews and meta-analyses (PRISMA) format for the systematic review.

Initially, four hundred forty articles were located during the systematic review. Five total articles were selected for review and 435 were excluded because they did not meet search criteria. Another two relevant articles were found during manual searches within references of the systematic review. The seven studies included were retrospective case studies involving patients with headaches or orofacial pain who received paraspinal cervical or other intramuscular injections. A total of 841 patients’ data were tallied from the 7 articles and 683 of those patients received anesthetic injections. Significant pain relief due to intramuscular or paraspinal cervical injections was observed in 83.7% of the patients.

Our systematic review of association between headache or orofacial pain relief and paraspinal cervical injections with various pain-relieving agents demonstrated a frequency of headache and orofacial pain relief of 83.7%. Such a large percentage compared to a robust placebo study provides promising evidence that this treatment may have a therapeutic role in the management of headache and orofacial pain. Despite limitations faced in performing our systematic review, it seems quite clear that pain relief for these headache patients can be attributed to intramuscular anesthetic or dry needling injections. While larger prospective studies should be performed regarding specific location and anesthetic, our systematic review provides additional evidence that anesthetic intramuscular and dry needling injections provide pain relief in tension-type headaches (TTH), migraine headaches, cervicogenic headache pain, and orofacial pain.

Headache; Cervical injections; Orofacial pain; Dry needling; Saline injections; Paraspinal injections.

Headaches are one of the most common patient complaints in medicine and on their basis of origin and character occur in a variety of categories. The International Classification of

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