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“Retrospective Review of Efficacy of Repeated Radiofrequency Ablation for Cervical and Lumbosacral Facet Pain”

Objectives: Neck and low back pain are two common complaints that can significantly reduce quality of life, resulting in interference with daily activities.¹ It is estimated that 84% of adults have had low back pain at some time in their lives, with 25% of adults reporting low back pain in the last three months.²⁻⁴ Some studies estimated that the 1 year incidence of neck pain is between 10.4% and 21.3%,⁵ with an annual prevalence rate exceeding 30% among adults in the United States.⁶ One of the most common pain generators for axial neck and back pain is the facet joint.

There is established data suggesting radiofrequency ablation (RFA) of the medial branch of the posterior rami nerve is the treatment of choice for cervical and lumbosacral facet-related pain.⁷⁻¹⁰ Although most patients experience clinically significant pain reduction, these benefits can dissipate with time. Patients typically obtain pain relief from 6 to 12 months, with some reporting relief for up to 2 years post-RFA.¹¹ Data is limited on the effectiveness of repeat RFA over several years. Therefore, we analyzed pain reduction and duration of relief on repeat RFAs compared to initial successful RFA in a group of patients with cervical and lumbosacral facet-related pain.

Methods: We used the Veterans Affairs electronic medical record database to identify all patients under the care of one group of physicians in the pain section of the Veterans Affairs (VA) medical center in New Orleans who received at least one of their repeat RFA between 2018 to 2021. We reviewed records to register patients that had an initial successful RFA and at least one repeat RFA in the same area. On a telephone interview, subjects were asked about duration of relief, percent pain reduction, and if repeat procedures provided similar relief. Successful repeat RFA was defined as 50% or greater reduction in pain. Failure was defined as less than 50% pain reduction. Patients who experienced continuing relief from repeated RFAs were not included in the data analysis.

Results: In the patient population that responded, there were 170 repeat RFAs performed with 128 successes and 42 failures. A Wilcoxon Signed Rank Test showed a significant difference between the duration of pain relief in months between the initial RFA ($M=10.11$) and the average repeat RFA ($M=7.63$), ($W= 47$, $p=0.03$). There was a wide distribution of the duration of relief. There was no response to repeat RFAs in three patients which were considered failures. In twenty-seven patients, RFA provided 1-6 months of relief, in twenty-three 7-12 months, in five 13-18 months, and in two patients over 18 months. The range of repeated RFAs was 1 to 7 with 13 patients having 1 repeat, 16 patients having 2 repeats, 10 patients having 3 repeats, 5 patients having 4 repeats, 4 patients having 5 repeats, 4 patients having 6 repeats, and 4 patients having 7 repeats.

Conclusion: Our data demonstrates that patients received pain relief from repeat RFA procedures.

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