E-Poster

EP-97

Influence of Thumb Paralysis on Outcomes After Intra-Articular Injection of Botulinum Neurotxin-A: A Secondary Analysis of the RHIBOT Trial

Topic: Injections (Joint, Spine, etc.)

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BACKGROUND

We previously found in the RHIBOT trial, a double-blind, randomized, controlled phase 3 study, evaluating the efficacy of intra-articular botulinum neurotoxin A (BoNT-A) injections (Botox 50 units) combined with custom rigid splinting in individuals with painful base-of-thumb osteoarthritis, a significant pain reduction at 1 and 3 months post-intervention. However, 40% of the participants in the experimental group experienced transient motor deficit of the thenar muscles. We aimed to evaluate whether transient thumb paralysis could impact positively or negatively the effects of intra-articular Botox on pain, hand-specific activity limitations and patient global assessment.

METHODS

We conducted a secondary analysis of the experimental group of the RHIBOT trial. We compared demographic and clinical characteristics at baseline, pain intensity (NRS 0–100), hand-specific activity limitations (Cochin Hand Function Scale), and global health status (Patient Global Assessment) at baseline, 1, 3, and 6 months post-injection between participants who experienced transient thumb paralysis and those who did not.

RESULTS

Among the 30 participants of the experimental group, 12 (40%) had transient paralysis. Baseline pain scores (62.5 vs. 61.1) and demographics were similar. Pain scores decreased in both groups post-injection, with slightly lower scores in the paralysis group at 1 and 3 months, converging by six months as BoNT-A effects on paralysis waned. Functional outcomes and global health status showed no statistically significant differences between groups across all time points.

CONCLUSION

Transient thenar muscle paralysis did not significantly impact the effects intra-articular Botox on pain, hand-specific activity limitations and patient global assessment. Our findings suggest that the positive effects of intra-articular Botox are most liklely mediated by direct modulation of pain pathways, rather than by transient thumb paralysis.

Statement of Disclosures

None

Doi: 10.5606/archisprm.2026.EP-97

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