IHC25-PO-500
Sep 10 – 13 2025
São Paulo | Brazil
IHC 2025
International Headache Society
NOTA CAPES 6

Safety and Efficacy of Minimally Invasive Intra-Articular Treatments for Temporomandibular Dysfunction: A Systematic Review and Meta-Analysis.

João Pedro Caetano, DDS, MSc 1,2; Mateus Gaya dos Santos, DDS 3; Júlia Gomes, DDS 3; Wellington Luiz de Oliveira da Rosa, DDS, MSc, PhD ; Cristian Sbardelotto, DDS, MSc, PhD 5; Camila da Silva Rodrigues, DDS, MSc, PhD 6; Noéli Boscato, DDS, MSc, PhD 7

1 PhD Student, Graduate Program in Dentistry, Federal University of Pelotas (UFPel), Pelotas, Brazil. 2 Medical Student, School of Medicine, Catholic University of Pelotas (UCPel), Pelotas, Brazil. 3 Graduate student, Graduate Program in Dentistry, Federal University of Pelotas (UFPel), Pelotas, Brazil. 4 Associate Professor, Graduate Program in Dentistry, Federal University of Pelotas (UFPel), Pelotas, Brazil. 5 Post-Doctoral fellow, Graduate Program in Dentistry, Federal University of Pelotas (UFPel), Pelotas, Brazil. 6 Assistant Professor, Department of Dental Materials and Prosthodontics, Institute of Science and Technology, São Paulo State University (UNESP), São José dos Campos, Brazil. 7 Full Professor, Graduate Program in Dentistry, Federal University of Pelotas (UFPel), Pelotas, Brazil.

INTRODUCTION

Temporomandibular disorders (TMDs) affect up to one-third of adults and cause pain, limited jaw movement, and functional impairment.

Conservative therapies are first-line, but minimally invasive procedures are widely used to reduce pain, improve joint function, and promote tissue repair.

OBJECTIVE

To evaluate the efficacy of intra-articular injections with different substances for temporomandibular disorders
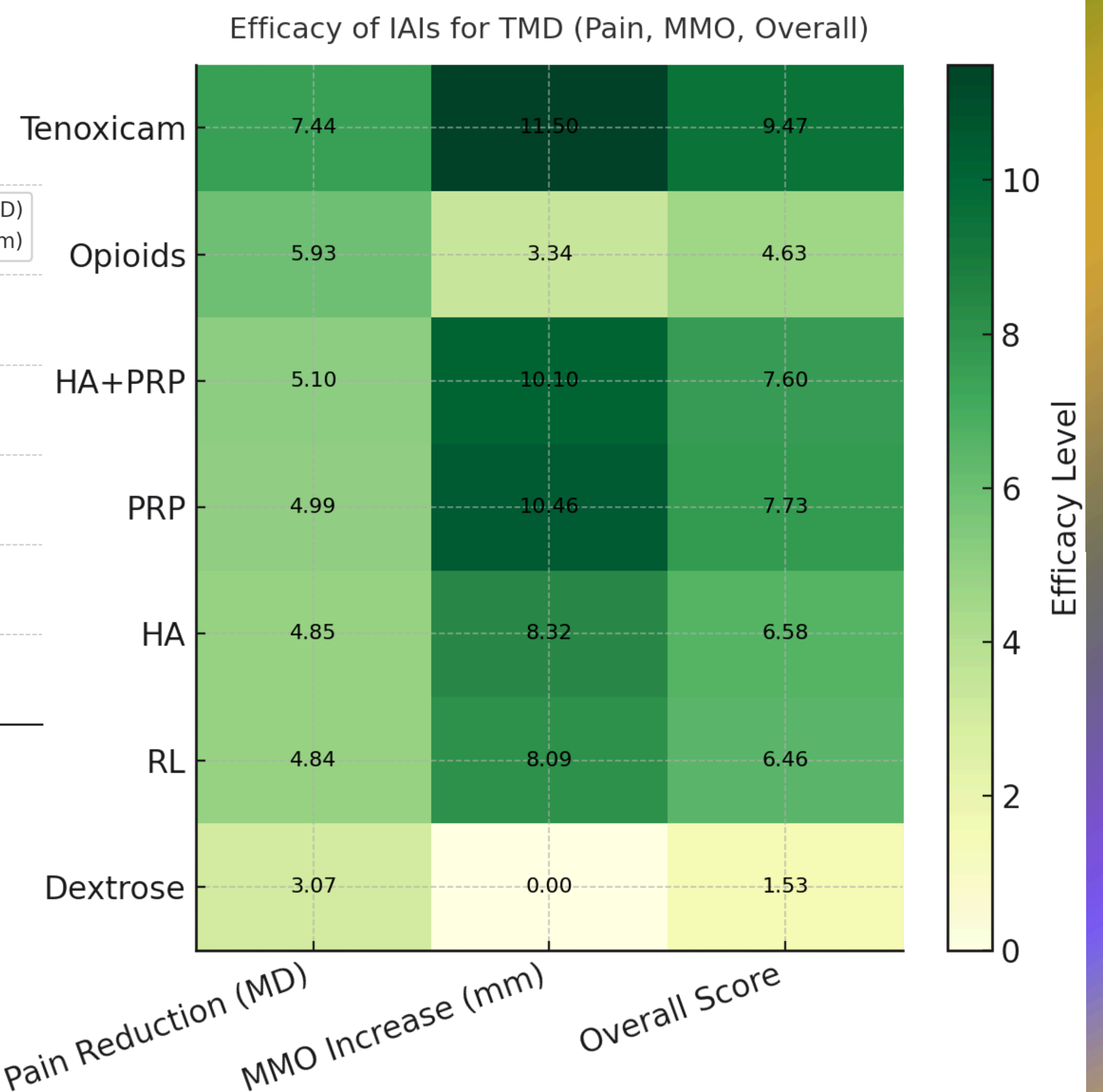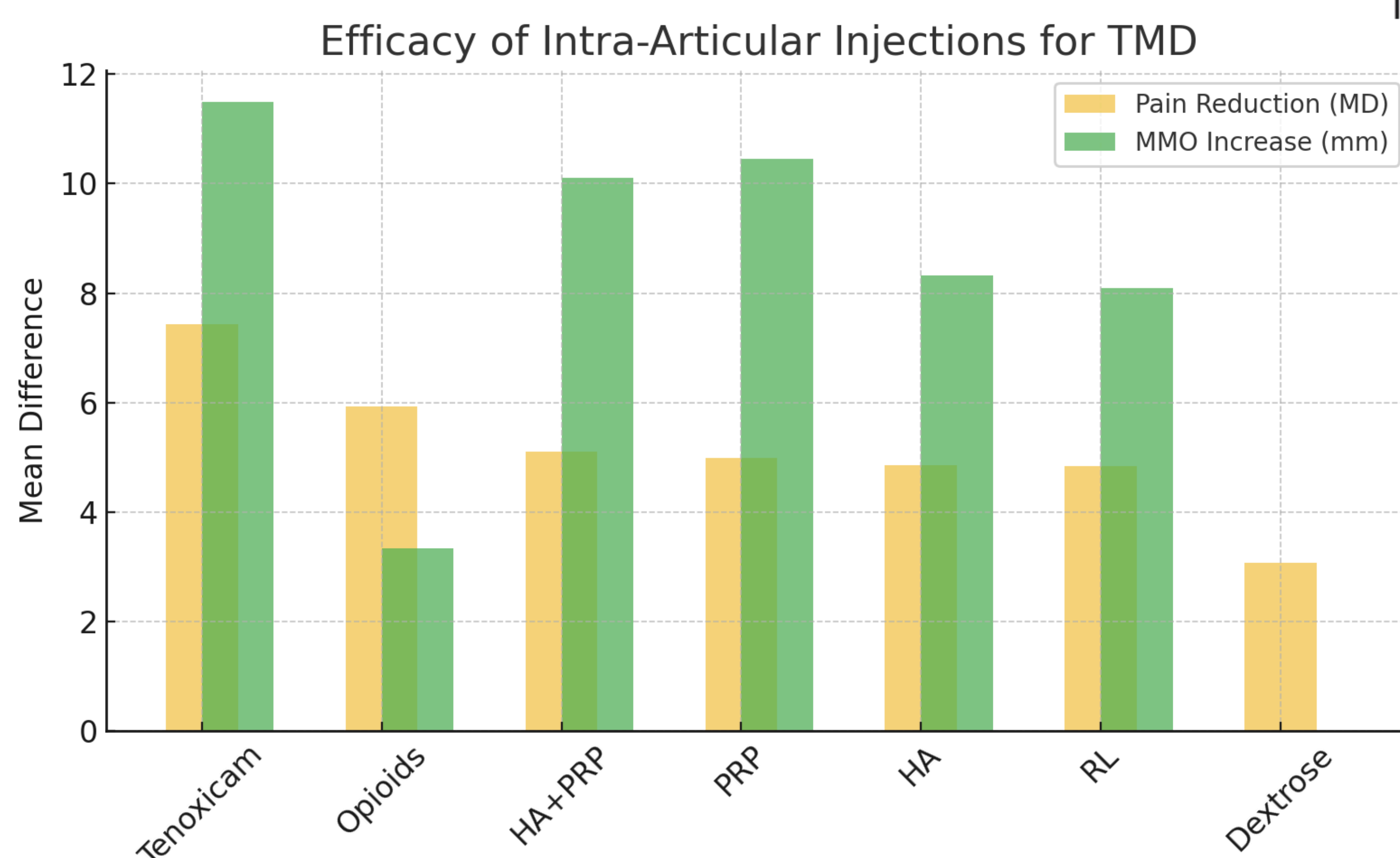
METHODOLOGY

Only randomized clinical trials (RCTs) assessing the efficacy of minimally invasive procedures were included.

The meta-analysis included seven studies with a six-month follow-up, while twenty-three studies with different follow-up periods were evaluated qualitatively.

The meta-analysis was conducted using RevMan software, evidence was graded with GRADEpro GDT, and the risk of bias using RoB 2.0.

RESULTS

Efficacy of Intra-Articular Injections for TMD

Efficacy of IAIs for TMD (Pain, MMO, Overall)

	Pain Reduction (MD)	MMO Increase (mm)	Overall Score
Tenoxicam	7.44	11.50	9.47
Opioids	5.93	3.34	4.63
HA+PRP	5.10	10.10	7.60
PRP	4.99	10.46	7.73
HA	4.85	8.32	6.58
RL	4.84	8.09	6.46
Dextrose	3.07	0.00	1.53

CONCLUSION

Tenoxicam intra-articular showed the greatest efficacy for both pain reduction and MMO improvement, while HA+PRP also demonstrated consistent benefits, especially when combined with arthrocentesis.

REFERENCES

SCAN ME!