

# Utility of Misoprostol in Lumbar Spinal Stenosis: Retrospective Review and Cross-Sectional Study

Tri Pham, BA<sup>1</sup>; Adam Butler, BS<sup>2</sup>; Kevin Vu, MD<sup>1</sup>; Thiru Annaswamy, MD, MA<sup>1,3</sup>

<sup>1</sup>University of Texas Southwestern Medical Center, Dallas, Texas; <sup>2</sup>University of Cincinnati College of Medicine, Cincinnati, Ohio; <sup>3</sup>VA North Texas Health Care System, Dallas, Texas

### Background:

- Limaprost, a PGE1 analog, is first-line therapy for lumbar spinal stenosis (LSS) in some countries. However, it is not available in the United States.
- This study explored use of misoprostol, a similar PGE1 analog, to treat claudication symptoms in LSS patients.

### Design:

- Patients were prescribed 200mcg or 400mcg/day of misoprostol.
- Outcomes included: Swiss Spinal Stenosis Questionnaire (SSSQ), intermittent claudication distance (ICD), and the Oswestry Disability Index (ODI).


### Results:

- Twenty-three patients were enrolled. Mean treatment satisfaction measured by the SSSQ indicated mild satisfaction to mild dissatisfaction.
- With mean misoprostol use duration of 420.4 days, 75% of our patients showed improvements in ICD with 67% reporting no claudication symptom during walking test while 62% showed reduction in ODI, indicating functional improvement.
- Increased ICD was associated with decreased SSSQ and ODI scores, reflecting increased satisfaction and improved physical function.

### Conclusions:

- Misoprostol tends to improve both ICD and ODI (functional ability), although treatment satisfaction results are mixed.
- ICD measurement was capped at 500 feet and many post-misoprostol patients reached this limit, suggesting impact may be greater than observed.
- High-quality, prospective studies are necessary to characteristic true effect size and clinical significance.

# Misoprostol may improve pain symptoms in patients with lumbar spinal stenosis.



### ICD and ODI Measured Pre- and Post-Misoprostol

