



# An Osteopathic Approach to a Hypermobile, Postpartum Patient With Back and Pelvic Pain



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## Objectives

To examine the efficacy of osteopathic manual therapy (OMT) and prolotherapy as adjunctive modalities in managing postpartum low back (LBP) and pelvic pain (PP) in the setting of pre-existing hypermobility.

## Introduction

LBP and PP, defined as pain in the sacroiliac (SI) joints, gluteal region, or pubic symphysis affects up to 25% of postpartum women after three months and continues to increase over the following year. Rates are increased in those with pre-existing hypermobility.

Current management involves reassurance, physical activity, at home exercises, and anti-inflammatories for pain management.

Research shows OMT and prolotherapy are safe and effective and individually supported in those with hypermobility, but combined use currently lacks supporting data.

## Case Description

### History of Present Illness:

- A 41-year-old G3P1 woman presented 4 weeks after delivery at 40w5d gestation for LBP and PP. Delivery was complicated by uterine atony with postpartum hemorrhage requiring aggressive intervention
- She described the pain as sharp and worsened with holding her baby, walking, or sitting
- Had tried acetaminophen, stretches, heat, ice, and massage with minimal relief
- Associated symptoms included fatigue, decreased sleep, and headache
- History was notable for pre-existing hypermobility and recent increase in stress

### Positive Physical Exam Findings:

- Afebrile, normotensive, BMI of 31.6
- In visible pain when sitting, standing, and changing position

### Objective Findings:

- Positive Beighton score of 7/9 indicating hypermobility
- Positive Athens Insomnia scale of 12/24 indicating moderate sleep difficulty
- US imaging showed SI joint distances of 9.1mm on the left and 10.4mm on the right (normal: 2-3mm decreasing with age)

## Discussion of Osteopathic Manipulative Treatment

### Significant Osteopathic Structural Exam Findings:

- Lumbar: hypertonic L paraspinal and b/l QL muscles, +QL TP
- Pelvis: L innominate shear
- Sacrum: L unilateral flexion
- Lower Extremity: R gluteus minimus TP, hypertonic R quad muscle

### Differential:

- LBP and PP secondary to Postpartum physiological changes, hypermobility, or muscle spasm

### Final Diagnosis:

- LBP and PP secondary to pre-existing and postpartum hypermobility and somatic dysfunctions of 8/10 regions

### OMT Plan and Sequence:

- Treatments occurred at **five visits over two months**
- **Behavioral Model:** Provided at home stretching and strength training, advised alternating sides holding/feeding baby, encouraged support in baby care
- **Biomechanical Model:** Still's technique for thoracic/lumbar dysfunctions, balanced ligamentous tension and counterstrain for the pelvis/sacrum dysfunctions, muscle energy for lower extremity dysfunctions
- **Metabolic Model:** Prolotherapy of the iliolumbar ligaments, interspinous ligaments, and right gluteus medius tendon to address hypermobility and maintain improvements gained through OMT
- **Respiratory/Circulatory Model:** Pelvic diaphragm myofascial release

## Outcomes

- She experienced overall improvement in SI joint distance (Figure 1), pain level, Athens Insomnia score, and markedly prolonged period of symptom relief between visits

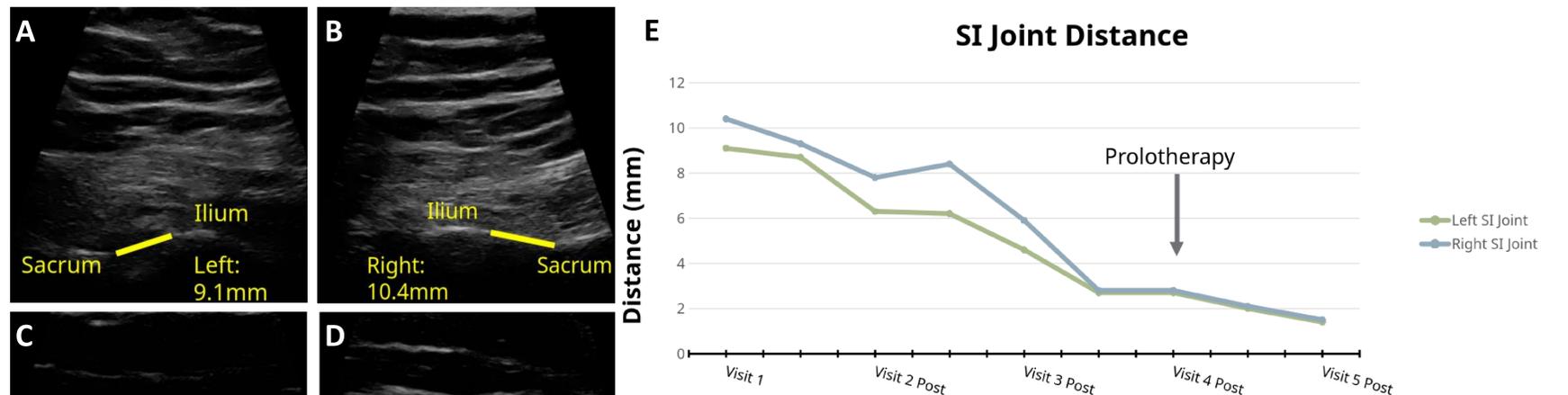


Figure 1

- A. Left SI joint distance pre-treatment
- B. Right SI joint distance pre-treatment
- C. Left SI joint distance post-treatment
- D. Right SI Joint distance post-treatment
- E. Change in SI joint distance pre- and post-treatment at each visit

## Conclusion

Given these findings, OMT and prolotherapy show promise as adjunctive treatments for postpartum LBP and PP in the setting of hypermobility, and further research should be considered to better understand their efficacy.

## Acknowledgements

### Thanks to:

- My patient
- Madison Gackle, OMS-II
- Dr. Martin, DO
- Dr. Ural, DO
- Dr. Ashurst, DO
- Midwestern osteopathic fellows

## References

