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Chiropractic Management of Pregnancy-Related Lumbopelvic Pain: A Case Study

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Abstract

Objective: The purpose of this case report is to describe chiropractic management of a patient with pregnancy-related lumbopelvic pain.

Clinical Features: A pregnant 35-year-old woman experienced insidious moderate to severe pregnancy-related lumbopelvic pain and leg pain at 32 weeks' gestation. Pain limited her endurance capacity for walking and sitting. Clinical testing revealed a left sacroiliac joint functional disturbance and myofascial trigger points reproducing back and leg pain.

Intervention and Outcome: A diagnosis of pregnancy-related low back pain and pregnancy-related pelvic girdle pain was made. The patient was treated with chiropractic spinal manipulation, soft tissue therapy, exercises, and ergonomic advice in 13 visits over 6 weeks. She consulted her obstetrician for her weekly obstetric visits. At the end of treatment, her low back pain reduced from 7 to 2 on a 0-10 numeric pain scale rating. Functional activities reported such as walking, sitting, and traveling comfortably in a car had improved.

Conclusion: This patient with pregnancy-related lumbopelvic pain improved in pain and function after chiropractic treatment and usual obstetric management.

Introduction

There are discrepancies to defining lumbopelvic pain in the pregnant population.[1,2] Current terminology, pain topography, functional disabilities, and positive correlation of clinical testing have demarcated the classification of pregnancy-related lumbopelvic pain (PR LPP) into subgroups: pregnancy-related low back pain (PR LBP) and pregnancy-related pelvic girdle pain (PR PGP).[2–4]

Careful observation of the clinical features of PR LPP can help distinguish the seriousness of the potential symptoms and prognosis. Pain has shown to influence pregnant women's daily lives and the challenges they encounter concerning their physical, psychological,

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occupational, and social function.[1–8] Defining PR LPP is imperative for the early diagnosis and effective management of PR LPP to improve quality of life.[5] A recent prospective cross-sectional descriptive study[9] by midwives demonstrated that the majority of pregnant women agreed that "LPP was expected because of the pregnancy." Only 25% recounted receiving any form of back treatment. In early pregnancy, women classified with combined low back pain and pelvic girdle pain exhibit the highest risk for persistent pain postpartum, functional disability, and recurrence of PR LPP in subsequent pregnancies.[5,6,10]

There is no "gold standard" for diagnosing PR LPP,[4,10] and this diagnosis is dependent on assessing clinical features, including etiology and risk factors, symptoms and pain topography, functional disabilities, and positive results to provocation tests.

Etiology continues to be considered as unknown,[6] but some reported that trigger factors include hormones,[11] biomechanics, trauma, metabolic factors, inadequate motor control, and stress of the ligament structures.[2,12,13] Symptoms of PR LPP can begin as early as the first trimester or at any stage during the pregnancy. Risk factors for developing PR LPP are strongly related to a history of previous low back pain, previous trauma to the pelvis, multiparity, and a high work load.[5] *Pregnancy-related low back pain* has been defined[2] as pain between the 12th rib and the gluteal fold throughout the course of the pregnancy. Pregnancy-related back pain shares clinical symptoms to nonpregnancy nonspecific low back pain,[2–4] including dull pain exacerbated by forward flexion, associated erector spinae pain upon palpation, and associated restriction in lower spinal movement.

Pregnancy-related pelvic girdle pain is defined as pain located from the level of the posterior iliac crest, the gluteal fold, and over the anterior and posterior elements of the pelvis during the course of the pregnancy. Pregnancy-related pelvic girdle pain also includes symphysis pubis pain syndrome and leg disturbances. The pain may radiate across the hip joint and femur,[7] lacking a typical nerve root distribution.[4] In PR PGP, functional abilities are compromised including endurance capacity for standing, walking, and sitting.

Pain provocation and palpation tests increase the sensitivity and specificity to the diagnosis of PR LBP and PGP if 3 or more give a positive test response.[2] These tests include posterior thigh test, Patrick's FABER, Gaenslen's test, modified Trendelenburg, distraction of the sacroiliac joint, active straight leg raise, responses to pain palpation of the dorsal longitudinal sacroiliac ligament, and palpation of the symphysis.

Although complementary and alternative medicine (CAM) has gained popularity among pregnant women, efficacy studies are still in the "infancy" days.[14–16] Studies suggest that spinal manipulation therapy (SMT) may be an effective and safe intervention in PR LPP.[17–19]

A recent randomized chiropractic clinical trial[18] reported on the combination of multimodal and obstetric management in PR LPP. Obstetric care included usual prenatal consultation. Multimodal care involved chiropractors providing manual therapy, stabilization exercises, and patient education. The combination of management shows a greater improvement in pain and physical function as compared with just usual obstetric care.

In an observational prospective cohort study of 115 patients,[20] most pregnant patients undergoing chiropractic treatment reported clinically relevant improvement at every interval of time analyzed.

Evidence-based research in chiropractic care and SMT[16–19] is beginning to provide alternative back pain management in PR LPP. The purpose of this case study is to describe the chiropractic care of a patient diagnosed with the combination of PR LBP and PR PGP which was managed concurrently with usual medical obstetric care.

Case Report

A healthy 35-year-old female gravida 4 at 32 weeks' gestation presented for chiropractic care with moderate to severe PR LPP and leg pain. Pain was located bilaterally at the posterior iliac crest, the gluteal fold over the anterior and posterior elements of the bony pelvis, and into the left posterior thigh and calf muscle. The patient also reported constant "uncomfortable" tension in neck and shoulders. The value given to a 0-10 numeric pain rating scale of her back and leg was rated at 7. Insidious pain began from approximately the 20th week and was now traveling into her leg.

This was the patient's fourth in vitro fertilization pregnancy in a time period of less than 5 years. Her first pregnancy 3½ years previously produced a healthy child. However, 2 subsequent pregnancies were aborted at 20 weeks because of complications and genetic abnormalities. No previous incidences of trauma or injury were reported to the spine, pelvis, hips, or knees. Because of increased intensity and duration of pain, the patient was not able to work and therefore ceased work earlier than anticipated. In a patient-reported outcomes measure questionnaire, she