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Pregnancy-Related Low Back Pain or Gestational Back Pain: Too Complex to Handle or too Simple to Ignore?

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Abstract

Pregnancy-related low back pain (PRLBP) or Gestational back pain (GBP) is a common clinical presentation in women during pregnancy and childbirth. The objective of this review article was to update the existing evidence through a PubMed search of relevant literature. There were studies on definition and historical presentation, causes, biomechanical factors, risk factors, prevalence and incidence, management including conservative treatment options such as acupuncture, physiotherapy (physical therapy) and pain management. Preventive studies were not found, which essentiates need for future studies in order to inform clinical practice.

Keywords: Obstetric back pain; Orthopaedic gynecology; Gynecological rehabilitation; Obstetric rehabilitation.

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Pregnancy-related low back pain (PRLBP) or Gestational back pain (GBP) is a common clinical presentation in women during pregnancy and childbirth. The objective of this review article was to update the existing evidence through a PubMed search of relevant literature.

Definition

Anecdotally, low back pain and pregnancy were considered to be two different entities, until many years ago, pregnant women with no previous history of back pain developed low back or pelvic pain during or after gestation.[1] Pregnancy related low back pain (PRLBP) or Gestational back pain (GBP) could present as either a pelvic girdle pain between the posterior iliac crest and the gluteal fold or as a lumbar pain over and around the lumbar spine.[2]

Causes

Aetiologically, three distinct causes were recognized for pathogenesis of PRLBP as: vascular (compression of inferior vena cava by the growing fetus leading to viscerogenic referred pain during supine position in sleep, termed as 'supine hypotensive syndrome'); endocrine (sacro-iliac or pelvic ligament dysfunction/strain due to laxity caused by increased levels of relaxin hormone; and, biomechanical (changes in lumbar spine lordosis altering the loads on spinal muscles and ligaments leading to lumboasacral strains).[3] Biomechanically, three factors related to the development of PRLBP were abdominal sagittal diameter, abdominal transverse diameter and depth of the lumbar lordosis.[4]

Risk Factors

Previous back pain, previous pregnancies (multiparous), change in level of physical activity (previously active women becoming sedentary or previously sedentary women becoming unusually active), abnormal posture and back care during regular daily activities could lead or add on to

PRLBP.[5] Other factors that may influence the development of PRLBP were age, the weight gained by the mothers during pregnancy, and the baby's weight,[6] in addition to frequent abortions and/or menopausal symptoms.[7] History of hypermobility and reported periods of amenorrhoea were also identified as risk factors for PRLBP, whileage at menarche and use of oral contraceptives were not associated with PRLBP.[8]

Epidemiology

From the 12th week until delivery(during second and third trimesters of pregnancy), the point prevalence rate for PRLBP or GBP ranged from 22-28%; 9-month period prevalence was 49%; and, 6-month incidence was 27%[9] and lifetime incidence was 66%.[7]

Management

Medically and socially, pregnant women with back pain receive responses such as, "it's natural, pain would normally disappear after childbirth;" or "without pain, no gain" statements which lead to gross neglect of the symptom as a troublesome condition.[10] Appropriate identification and initiation of suitable management approaches are necessary, albeit after screening for red flags which require referral to other medical experts.[11]

Usually conservative treatments such as exercise-based interventions and alternative medicine are preferable since explicit diagnostic testing using radiographs are contra-indicated at this stage.[12] Interventions such as patient education, the use of pelvic belts, acupuncture, and aquatic and tailored postpartum exercises might offer some benefits.[13] Active management strategies include Acetaminophen, local icing, ergonomic adaptation and a good low-back exercise program.[14]

Conservative Interventions-Evidence

Pennickand Young[15] in their Cochrane systematic review concluded; compared to usual prenatal care alone, women participating in strengthening exercises, sitting pelvic tilt exercises, and water gymnastics had reduced pain intensity and back pain-related sick leave. Both acupuncture and stabilising exercises relieved pelvic pain better than usual prenatal care, with acupuncture better than exercises for evening pain and overall pain intensity.

Acupuncture-Evidence

Eeet al[16] in their systematic review found two small trials on mixed pelvic/back pain and 1 large high-quality trial and found that, "Acupuncture, as an adjunct to standard treatment, was superior to standard treatment alone and physiotherapy in relieving mixed pelvic/back pain; women with well-defined pelvic pain also had greater relief of pain with a combination of acupuncture and standard treatment, compared to standard treatment alone or stabilizing exercises and standard treatment."

Physical Therapy-Evidence

Ferreira and Alburquerque-Sendín[17] in their systematic review searched Medline, PEDro, SciELO, SCOPUS, LILACS, and the Cochrane Library and found six randomized trials which used exercise for motor control and stability of the lumbopelvic region, on women with PRLBP with different intervention approaches and concluded that limited evidence existed for efficacy of such methods in this population.

Stuge *et al*[18] in their systematic review included a total of 1350 patients innine trials of which two high-quality studies showed no difference in pain intensity and functional status between the exercise groups and the control groups. In the third high-quality study significant reduction in sick leave was found in favor of water gymnastics compared with no intervention.The heterogeneity and the varying quality of the studies provided no strong evidence concerning the effect of

physical therapy interventions on the prevention and treatment of back and pelvic pain related to pregnancy.

There were studies on definition and historical presentation, causes, biomechanical factors, risk factors, prevalence and incidence, management including conservative treatment options such as acupuncture, physiotherapy (physical therapy) and pain management. Preventive studies were not found, which essentiates need for future studies in order to inform clinical practice.

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