Global Year Against Pain in Women

real women, real pain

Pain During Pregnancy

Pain within the pregnant population is a neglected condition of substantial public health impact (1). Acute and chronic pain syndromes in pregnant women are difficult to manage, not least because there is a need to balance the best interests of the mother and the neonate.

When pain is poorly controlled there can be adverse psychological effects (2), which may cause antenatal, as well as postnatal, depression. Many cases of post-partum depression begin before delivery (3).

Poorly controlled pain may increase the mother's risk of prolonged time in bed resulting in immobility. This can lead to problems such as deep vein thrombosis and pulmonary embolism. The longer women and babies are in hospital, their risk of getting hospital-acquired infections increases (4).

Severe uncontrolled maternal pain may result in a premature fetal delivery; either precipitated spontaneously or induced medically (5). Early delivery of the baby (less than 36 weeks) requires admission to neonatal intensive care, which is one of the most expensive admissions to a public hospital (6). Separation at birth makes this an emotional and stressful time for both the mother and the baby and may increase maternal and neonatal morbidity.

Epidemiology

Pain is common in pregnancy. Approximately 25-56% of pregnant women suffer some lumbopelvic or peripartum pelvic pain. Approximately 8% of these pregnant women become severely disabled with this condition, which may require admission into hospital (7). In one third of pregnant women, pain is a severe problem compromising normal everyday life, work and sleep (7, 8, 9, 10, 11).

There is a lack of any standard definitions. Terms used include: pregnancy related pelvic girdle pain and pregnancy related low back pain. Symphysis pubis dysfunction is a term also used, but some consider that such dysfunction is more often a secondary problem coexisting with lumbar or sacroiliac pain.

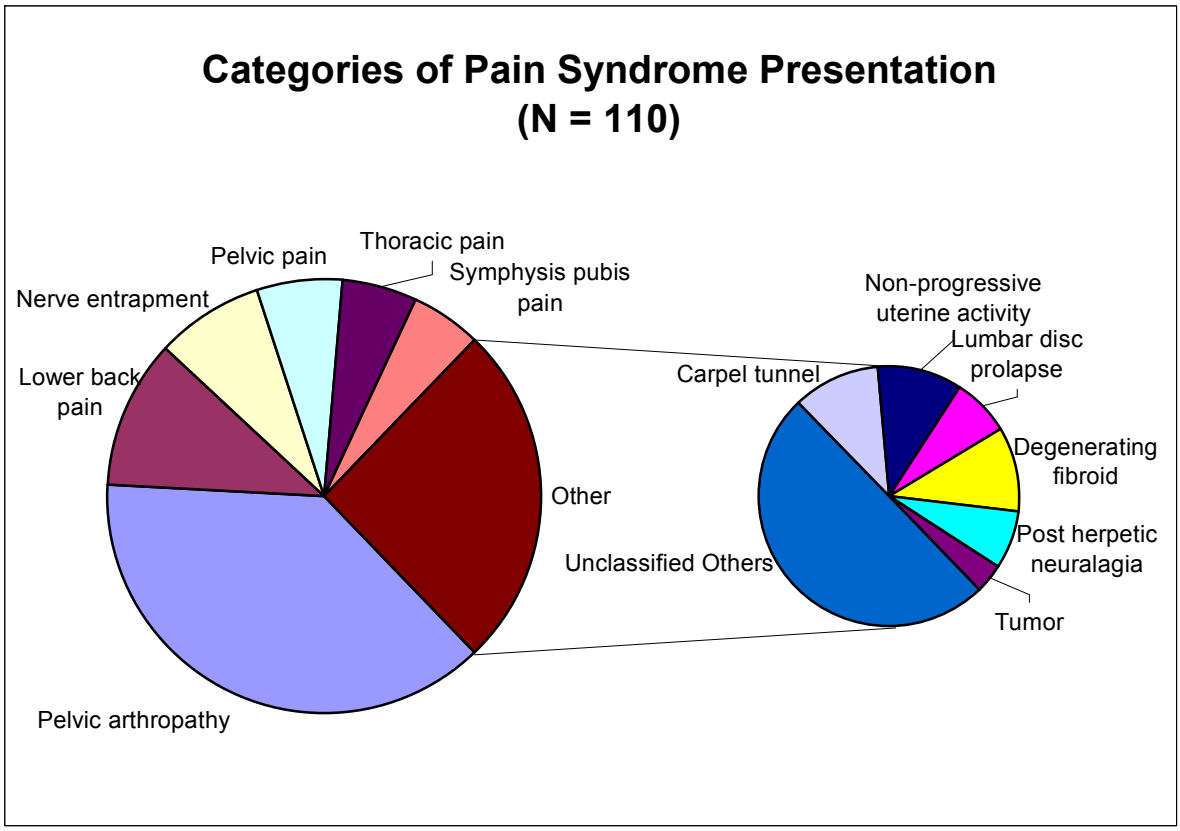
In a study of 870 women referred to physical therapy for pain during pregnancy, over 76% of their women complained of pain over the sacroiliac joints and 57% complained of pubic symphysis pain (11). A correlation was found in those women with previous low back pain and pelvic pain, higher pre and end pregnancy weight/body mass index (BMI), increasing parity, a history of hypermobility and pain syndromes in pregnancy (8).

Proposed mechanisms

The main factors are probably mechanical, due to the alteration in posture required to carry the increasing mass in the abdomen, and hormonal, through changes in the pelvic ligaments.
The hormone responsible is unclear. Although relaxin acts on human uterine tissue by regulating the expression of metalloproteinases in the matrix, it does not seem to generate musculoskeletal pain problems. Ultrasonography shows an association between the width of the symphysis pubis and pain at that site, irrespective of serum relaxin concentrations. Pregnancy may compromise the inherent stability of bones and ligaments in both the spine and the pelvis, requiring muscular activity to maintain stability of associated joints

Other pain problems

Other categories of pain syndrome that resulted in hospital admissions for pregnant women were found in a retrospective audit (12). These included pain syndromes such as: nerve entrapment, thoracic pain, degenerating fibroid, post herpetic neuralgia, carpel tunnel syndrome and lumbar disc prolapse.



(12)

Treatment

Prevention of admission to hospital is the ultimate goal. Once pain has become such that it compromises a woman's daily living activities, admission to hospital becomes necessary.

Goals of treatment would be firstly to use non-pharmacological techniques, as it is important to understand that the fetus is a passive recipient of any medications that may be administered.

Non-pharmacological techniques include education, advice and exercise prescribed by a physiotherapist. In addition transcutaneous electrical nerve stimulation (TENS), heat or cold packs, local infiltration with local anaesthetic and steroid and physiotherapy can be used with good success (5, 13, 14).

Stabilizing exercises, stretching exercises of specific muscles and massage can all contribute to the reduction of pain in pregnancy by breaking the cycle of pain due to poor posture, increasing lordosis, muscle spasm and increasing immobility (5, 9, 13, 15, 16). The use of aids such as crutches, walking frames, supportive pillows with positioning while sitting and lying, pelvic belts and the use of sacroiliac support belts can increase mobilization and reduce the risks associated with prolonged bed rest and inactivity such as clot formation and muscular deconditioning (16, 17).

Two systematic reviews should also guide practice for pregnant women with non-specific pain in the pelvis or lower back. A Cochrane review found water gymnastics, acupuncture and use of a specifically shaped pillow for sleeping to be beneficial (9). The second systematic review could not extend the conclusions of the Cochrane review because of the heterogeneity of the trials. There does appear to be evidence that individualised physiotherapy and acupuncture treatment provides some relief for these problems (15). Some concern has been expressed about the use of acupuncture and subsequent miscarriage. However, a literature review has failed to identify that such a link exists (18, 19).

The addition of psychological therapies such as self-hypnosis and counseling may be beneficial.

The efficacy of analgesics has not yet been established fully (20, 21) and one of the major times of concern for the use of medications in pregnancy is during the vulnerable period of organogenesis, (weeks 4 – 10). It is important to restrict the use of medications to those that have evidence of safety in order to minimise harm to the developing fetus (22). Medications, such as paracetamol and codeine are safe in pregnancy, although NSAIDs should be avoided. Ensuring there is multidisciplinary team support and involvement is vital to the success of treatment (5, 13).

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