

**David A Mitchell**

MBBS, FRACGP, MPH, is a general practitioner, and Research Fellow, Baker IDI, Cairns, Queensland. davidmitchell2000@hotmail.com

Danielle M Esler

MBBS, BMedSci(Hons), FRACGP, MPH, is Senior Public Health Registrar, Tropical Public Health Services, Cairns, Queensland.

Pelvic instability

Painful pelvic girdle in pregnancy

Background

Pelvic instability is a term describing a group of conditions causing pelvic girdle pain in pregnancy. Although a common problem in pregnancy, it is easily overlooked and sometimes dismissed as 'normal' by primary care professionals.

Objective

This article outlines the clinical features, diagnosis and management of pelvic instability in pregnancy.

Discussion

General practitioners are in an ideal position to diagnose pelvic instability, implement treatment, and refer for further care to a physiotherapist with an interest in women's health. Use of a supportive belt or taping, appropriate analgesia, core stability and pelvic floor exercises, and avoiding heavy lifting and activities that exacerbate the pain are the mainstays of treatment.

Case study

Mrs Peach, 32 years of age, has recently given birth to her first child. Although delighted by this life changing event, her pregnancy was marred by some difficulty. Severe morning sickness prevailed well into the second trimester. When the symptoms finally settled at around 17 weeks gestation, and a morphology scan confirmed a healthy baby boy, she began to regain some control over her life. Unfortunately around the end of the second trimester, she noticed pain in the sacroiliac joints, aggravated by climbing stairs and lifting small amounts of weight. At the next two antenatal appointments she mentioned her symptoms to a midwife who reassured her that this was a normal part of pregnancy. The advice was reiterated at a further appointment with a general practitioner obstetrician. In response to her query regarding the benefit of physiotherapy she was told that this was unnecessary and excessive.

Mrs Peach's condition steadily progressed as she entered the third trimester. By 35 weeks she could feel her pelvis 'crunch' and 'open like a book' when rolling over at night. By then she was unable to walk more than 10 metres and was in constant pain. Activities of daily living were severely limited.

At 36 weeks she consulted a specialist obstetrician. On hearing the history he made the diagnosis of 'pelvic instability' and referred her to a physiotherapist with an interest in women's health. She was given crutches, told to avoid climbing stairs and had her pelvis supported with taping.

Although her symptoms did improve slightly, she continued to suffer pain and immobility up to a complicated instrumental delivery at 41 weeks gestation and beyond 12 weeks postdelivery. Postnatally she was given some relief by nonsteroidal anti-inflammatory agents, which were contraindicated during the pregnancy.

Mrs Peach was initially told her problem was trivial, but it resulted in significant disability and pain for a period of 5 months. At 6 months postdelivery she still has occasional pain, but is mobilising unaided.

■ Pregnancy related pelvic instability is a common and disabling problem. Recent data suggests that during pregnancy, 25% of women experience serious pelvic pain, and 8% are severely disabled.¹ After delivery, significant problems related to pelvic instability remain in about 7% of women.¹

Some confusion arises from the various nomenclature used to describe what is likely to be a group of conditions causing pelvic girdle pain in pregnancy. 'Pregnancy associated pelvic pain',² 'pregnancy related lumbopelvic pain',¹ and 'pregnancy related pelvic joint pain'³ are just a few of the terms found in the literature. 'Pelvic instability', or 'pelvic girdle pain in pregnancy' are both commonly used terms in Australia and Europe respectively. The Pelvic Instability Association⁴ defines pelvic instability as 'a condition that causes pain around the joints of the pelvis (pelvic girdle) during and after pregnancy'. The Pelvic Instability Network Support⁵ describes pregnancy related pelvic girdle pain as 'complex and multifactorial and likely to be represented by a series of subgroups driven by pain varying from peripheral or central nervous system,⁶ altered laxity/stiffness of muscles,⁷ laxity to injury of tendinous/ligamentous structures⁸ to 'maladaptive' body mechanics'.⁶

Pelvic instability is possibly related to an increase in the hormone relaxin which acts to create laxity in pelvic ligaments as the pelvic girdle adapts to an anticipated pregnancy. There may be a relationship between the levels circulating levels of relaxin and pelvic instability,⁸ however conclusive evidence remains forthcoming. One study suggests that, rather than the degree of laxity dictating the degree of pelvic pain, it is a relative asymmetry in laxity.⁹

Making the diagnosis

Specialist physiotherapists use a range of provocative tests to assist the diagnosis. For the general practitioner, a functional diagnostic approach based principally on clinical history is most useful. Symptoms include pain in the sacral-iliac joints, lower lumbar spine and pubic pain.⁷ There may be radiation of pain to the groin or hip. Pain with rolling over in bed, climbing stairs and getting out of the bath are highly suggestive of the condition. Most women do not notice symptoms until the later stages of the second trimester of pregnancy. There is also a tendency for the problem to recur in successive pregnancies.

Conventional radiography is poorly specific for the condition.⁷ It also represents a risk of radiation exposure to the unborn child.

The most important issue is for the treating GP to be aware of the possibility of pelvic instability in pregnancy and to make an early diagnosis. A tendency to dismiss the symptoms as a 'normal consequence of the body adjusting to its new shape' is a common mistake, and costly for the patient in terms of continuing pain and disability.

Management

Key management strategies are outlined in *Table 1*. Management should include advice to avoid activities that exacerbate the pain such as stair climbing. A supportive belt, ideally worn at the level of the anterior superior iliac spines decreases joint laxity.¹¹ Taping, exercises to improve core stability, and simple analgesia are also useful. It is important that women understand that it may take some time

Table 1. Pelvic instability management strategies

- Early referral to a physiotherapist specialising in women's health
- Pelvic floor exercises
- No heavy lifting (this includes toddlers)
- Avoid climbing stairs
- Keep knees together:
 - when getting in and out of bed and the car
 - no breast stroke if swimming
- Consider strapping or belt
- Paracetamol predelivery
- Anti-inflammatories may be taken after delivery
- May benefit from a mobility device such as crutches or a walking frame
- Avoid prolonged legs apart positions during labour

(typically 12 weeks, but potentially longer) for symptoms to resolve postnatally. Nonsteroidal anti-inflammatory agents contraindicated during pregnancy, can be introduced at this point with good effect. A physiotherapist with a special interest in women's health is an essential early point of contact and referral to a specialist obstetrician may be beneficial.

There is currently no evidence that caesarean section results in a more rapid recovery. Nonetheless, it is important that the patient's treating obstetrician and midwife are aware of the problem. Avoidance during labour of positions which aggravate the condition (even if an epidural makes the position pain free), and minimal time in stirrups if an instrumental delivery is necessary, are important.

Recurrence in subsequent pregnancies is common. Attention to improving core stability and care with aggravating activities may decrease the severity during future pregnancies.¹² Although there is no evidence that spacing pregnancies reduces the severity of future exacerbations, it may be wise for the woman to wait until her child can walk unaided.

Conclusion

Given that GPs are often the first point of contact for a pregnant patient, they are in an ideal position to diagnose pelvic instability, implement treatment and refer for further care. A good appreciation of pelvic instability will facilitate early recognition and prevent unnecessary delay in management.

Conflict of interest: none declared.

References

1. Wu WH, Meijer OG, Uegaki K, et al. Pregnancy related pelvic girdle pain (PPP), I: Terminology, clinical presentation, and prevalence. *Eur Spine J* 2004;13:575–89.
2. Hansen A, Jensen DV, Wormsley M, et al. Pregnancy associated pelvic pain. II: Symptoms and clinical findings. *Ugeskr Laeger* 2000;162:4813–7.
3. Albert HB, Godsken M, Westergaard JG. Incidence of four syndromes of pregnancy-related pelvic joint pain. *Spine* 2002;27:2831–4.
4. Available at www.pelvicinstability.org.au/about_pelvic_instability.htm [Accessed 17 November 2008].
5. Available at <http://pelvicgirdlepain.com/> [Accessed 17 November 2008].
6. O'Sullivan PB, Beales DJ. Diagnosis and classification of pelvic girdle pain disorders. Part 1: A mechanism based approach within biopsychosocial framework. *Man Ther* 2007;12:86–97.
7. Vleeming A, Albert HB, Ostgaard HC, Sturesson B, Stuge B. European guidelines for the diagnosis and treatment of pelvic girdle pain. *Eur Spine J* 2008;17:794–819.
8. Vleeming A, de Vries HJ, Mens JM, van Wingerden J-P. Possible role of the long dorsal sacroiliac ligament in women with peripartum pelvic pain. *Acta Obstetrica et Gynecologica Scandinavica* 2002;81:430–6.
9. MacLennan AH. The role of the hormone relaxin in human reproduction and pelvic girdle relaxation. *Scand J Rheumatol Suppl* 1991;88:7–15.
10. Damen I, Buyruk HM, Guler-Uysal F, Lotgering FK, Snijder CJ, Stam HJ. Pelvic pain during pregnancy is associated with asymmetry laxity of the sacroiliac joints. *Acta Obstetrica et Gynecologica Scandinavica* 2000;80:1019–24.
11. Mens JM, Damen L, Snijders CJ, Stam HJ. The mechanical effect of a pelvic belt in patients with pregnancy-related pelvic pain. *Clin Biomech* 2006;21:122–7.
12. Association of Chartered Physiotherapists in Women's Health. Pregnancy related pelvic girdle pain. Available at www.acpwh.org.uk/docs/ACPWH-PGP_HP.pdf [Accessed 27 November 2008].