THE CONSERVATIVE TREATMENT OF PAIN IN THE SACROILIAC REGION DURING PREGNANCY: A CASE STUDY

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SUMMARY
A case study of a pregnant woman complaining of pain in the left sacroiliac area is presented.
In a field where differences of opinion between authorities are common, the importance of clinical presentation and assessment is stressed. The selection of techniques is discussed highlighting some of the implications of treating the sacroiliac joint (SIJ) during pregnancy.

OPSOMMING
'n Gevalle studie van 'n swanger vrou wat kla van pyn in haar linker sakroiliale area, word aangebied.
In 'n veld waar outoriteite dikwels van mekaar verskil, word die belangrikheid van die kliniese voorkoms en die evaluering van die pasiënt, benadruk. Die keuring van verskillende tegnieke word bespreek, met verwysing na sommige van die behandelingsimplikasies van die sakroilialegewrig gedurende swangerskap.

INTRODUCTION

The reported incidence of low back pain during pregnancy is substantial[1-8]. Research suggests that approximately 50% of pregnant women experience back pain which is of sufficient intensity and duration to affect their lifestyle in some way[2,5,7,9].

CASE REPORT

Examination

Subjective Assessment

An active 32 year old woman (24 weeks pregnant), presented with pain in the lower left side of her back in a small area around the left sacroiliac joint (SIJ). She described the pain as constant, dull and deep which, on certain movements, became very severe. The movements which could set off the very severe pain included going from sitting to standing or taking full weight through her left leg. However, they were unpredictable in their effect and did not always bring on the severe reaction. During the day when at rest, the patient reported the pain as being 2 on a 5-point scale of severity. The occasional severe "spasms" could be as severe as 5 out of 5, returning to 2 if she kept still.

She was able to sleep comfortably on either side with a pillow between her legs. She reported no severe pain on first waking in the morning, although she needed to be careful how she got up out of bed.

There had been a gradual awareness of increasing discomfort over the previous week which she thought may have been aggravated during an antenatal exercise class three days previously. The more severe intermittent pains had started the day following this class.

Her occupation as a freelance journalist involved varying periods sitting at a desk at a computer, as well as regular travel. She had been working normally, and apart from attending regular antenatal exercise classes, played social tennis about once a week.

In November 1991 when she was 11 weeks pregnant she reported being sore and stiff in the same area. She had received physiotherapy treatment on four occasions from another physiotherapist, which consisted of massage and what sounded like a rotation manipulation. The pain had eased off but she was uncertain as to whether the treatment had helped very much. This was her first pregnancy which had progressed normally.

Objective Assessment

On observation the patient had a slight increase in the normal curvature of her lumbar spine. No other abnormalities were observed, but she moved slowly and cautiously and did not bear full weight on her left leg.

Lumbar flexion was restricted to the level of the mid-shin due to pain in the left sacroiliac area. The patient "climbed up her legs" in order to return to the upright position. Spinal extension and lateral flexion to the left and right were full range and pain free with overpressure. Spinal rotation to the left and right were full range but elicited a slight twinge of pain with manual overpressure.

The following SIJ tests were found to be positive. In supine, oscillating movements aimed at opening the posterior surfaces of the SIJ's produced a slight increase in pain in the left SIJ area. In right side lying, forward and backward rotation of the iliac crests reproduced a similar increase in pain.

Tension tests, peripheral joint tests and a neurological examination were unremarkable. Tests such as the prone knee bend and all the palpation tests were performed in a modified position in side lying, with a pillow between the legs.

On palpation slight protective muscle spasm was noted alongside the lumbar spine. Central, and left and right unilateral postero-anterior movements on the twelfth thoracic to the first sacral vertebrae produced no increase in pain. Left and right transverse pressures on the spinous processes on the same vertebrae and oscillatory pressures on the sacrum from it's proximal to distal end gave similar results.

According to Grieve[10], the only area where the SIJ can be palpated is on the ilium in the region of the posterior inferior iliac spine. Palpation at this locality was very tender, particularly when the pressure applied was directed antero-laterally.

Treatment One (24-2-92)

Due to the severity of the patient's pain and because the joints had been subjected to a fair amount of movement during the examination, the following treatment was given. As described by Maitland[6], a small rotatory movement (grade II-) of the pelvis towards the right was performed for 30 seconds.

No discomfort was felt during the mobilisation. Her level of pain was unchanged and flexion was the same, but returning to the upright position was easier. On trunk rotation to the left she reported only a slight increase in discomfort in the left SIJ area, while rotation to the right was full range and pain free with overpressure. The SIJ tests remained unchanged. This mobilisation technique was performed twice more for 30 seconds. Neurological examination was unchanged and remained so throughout the rest of the treatment of the patient.

Treatment Two (25-2-92)

The following day, she reported that she felt sore for a few hours following the treatment and had a few severe spasms during that time. However, she was now feeling "generally much better" but still assessed her pain as 2/5.

She could weight bear normally through the left leg. Trunk flexion and rotation was full range and painfree while the SIJ tests remained positive.

It was decided to use a slightly larger amplitude movement (grade

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2. Pryor JA and Webber BA. An evaluation of the forced expiration technique as an adjunct to postural drainage. *Physiotherapy* 1979;**65**(10):304-307.

Books:

1. Maitland G D. *Vertebral Manipulation*. 4th ed. London: Butterworths, 1977: 24.

2. Lipow HW and McQuitty JC. Cystic Fibrosis. In: Rudolf AM, ed. *Pediatrics*. Norwalk, Connecticut: Appleton-Century-Crofts, 1982:1433-1440.

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II) which was repeated 3 times for 30 seconds. Coming up from the fully flexed position was easier and the SIJ tests produced slightly less pain than before. This was followed by a light massage in side lying.

Treatment Three (28-2-92)

Three days later the patient reported that she was only aware of a dull pain (1/5), and had felt an occasional twinge in the left SIJ. She had also noticed some "general stiffness" in her lower back after sitting at her desk for some time, but this eased once she got up and moved around.

Medially directed pressure on the anterior superior iliac spines (ASIS) caused a twinge of pain in the left SIJ. This movement was then used as a treatment technique for 30 seconds and following the SIJ posterior gapping technique, a retest of this movement produced diminished pain in the affected area. A back massage was followed by posture correction, and advice on back care and back exercises.

Treatment Four (13-3-92)

The patient had been on assignment, travelling around the country for the previous couple of weeks. On examination, the only finding of any note was slight spasm of the lower erector spinae for which a back massage was given. The patient agreed that she would make further appointments if they were needed.

Treatment Five (27-3-92)

Two weeks later the patient presented with some pain and stiffness in the sacroiliac area following a game of tennis two days previously. At this stage the pain had eased considerably (1/5), and the stiffness was negligible. However, she was going away on holiday for a few weeks and wanted it checked.

Full range active rotation to the left in sitting and medially directed pressure on the ASIS in supine increased her pain. Treatment consisted of a rotation mobilisation of the pelvis to the right in side lying using a fairly large amplitude of movement, done three times for 30 seconds. This was followed by the SIJ posterior gapping technique, done for 30 seconds with sufficient force such that it initially produced a slight increase in her resting pain. On retesting her movements she reported the pain as being "definitely easier".

Telephonic follow-up a month later found the patient "very happy" with her back. Two months later her back was still clear of all symptoms.

DISCUSSION

The SIJ-Implications for Treatment

Although the debates concerning the mechanics of the sacroiliac joint are beyond the scope of this paper, it is interesting to note that most authors agree that the function and mechanics of the joint are far from clear[4,9,10,11,12,13,14]

There is even greater difference regarding the test procedures for sacroiliac dysfunction and the number of different syndromes that may be found on such examination.

Therefore, when the SIJ was suspected of involvement in this patient's pain, the number of tests was limited, particularly when the first ones performed were found to be positive.

Selection of techniques

Because of the severity of the patient's pain, rotation mobilisation was chosen as the first technique, even though the SIJ was thought to be involved. It is also considered an appropriate first technique to use in lumbar pain with unilaterally distributed symptoms[6].

Once the rotation mobilisation was shown to be of benefit and the test for posterior gapping of the SIJ's continued to reproduce the patient's pain, this test procedure became the logical treatment technique to use next[6,13].

Pregnancy and the use of manual mobilisation techniques

Authorities disagree on the precautions and contraindications which need to be considered regarding the use of mobilisation and manipulation techniques during pregnancy[6,9,16].

It was therefore considered wiser to err on the side of caution and not to perform anything more vigorous than gentle mobilisation techniques. This is however, an important area for further investigation.

CONCLUSION

In spite of the lack of understanding of the mechanics of the SIJ and its diagnosis and treatment during pregnancy, the notion of the "two compartment method of thinking", as described by Maitland,[8] provides a sound framework for clinical application. By separating that which is theoretical and speculative, from that which presents clinically, the therapist is able to base the treatment and it's progression primarily on the patient's symptoms, without losing sight of any underlying pathology.

This study has highlighted the fact that gentle mobilisation techniques may be used to good effect, even in circumstances where our theoretical knowledge may be far from complete.

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