

FREQUENCY OF BACKACHE IN PREGNANCY WOMEN ATTENDING ANTENATAL CLINIC

Shaheen Kausar, Arif Tajammul, Shahida Sheikh, Saima Iqbal, Shamaila Anwar

Allama Iqbal Medical College, Lahore

ABSTRACT

Objective: To determine the frequency of backache and assess the efficacy of various treatment modalities used for the management of backache in pregnancy.

Study Design: Descriptive study.

Study Setting: Outpatient department of obstetric services, Jinnah Hospital, Lahore

Patients and Methods: Patients coming to the antenatal clinic during February 2004 were asked about history of backache.

Results: A total of 918 women with complete data were recruited. Four hundred and thirty-two (47.05%) reported one or more significant episodes of back pain during their pregnancy. Of these 96 (22.22%) noted ongoing back pain at the time they became pregnant leaving a true incidence rate of (36.60%). Twenty-one patients (4.86%) were less than 20 years, 407 (94.21%) were in between 20-40 years of age and 4 (0.92%) were above 40 years. Eighteen patients (4.16%) were less than 50kg, 345 (79.86%) had weight in between 50-70 kg and 69 (15.97%) were more than 70kg. Seventy-eight patients (18.05%) were primigravidas, 292 (67.59%) were multigravidas and 62 (14.35%) were grand multigravidas. Ninety-six patients (22.22%) had backache before pregnancy and 336 (77.77%) had it during pregnancy. No treatment was taken in 23 patients (5.32%), rest in 297 (68.75%), analgesic in 106 (24.52%) and massage by 6 (1.38%) patients. Subjective relief was up to 50.0% with rest, 75.0% with analgesics and up to 50.0% with massage.

Conclusion: Backache is quite common in pregnancy. About one quarter of all pregnant women experience backache. About half of the patients took treatment mainly in the form of rest and analgesia. Chiropractic practice is also common in pregnancy and it gives some relief as well.

Keywords: Backache, pregnancy.

INTRODUCTION

Backache is a common symptom in women of childbearing age. With as many as half of women reporting back pain at some stage during pregnancy [1-3] it is perhaps not surprising that many obstetricians dismiss it as unimportant. But backache in pregnancy is a substantial problem. Many women are helped by understanding the likely cause of the pain and by advice on prevention and management.

There seems to be little difference in the prevalence of backache between pregnant and non-pregnant women [3,4]. In one study of Swedish women questioned between the ages of 38 and 64, two thirds reported experiencing back pain at some time, and only a minority said that it had started in pregnancy [3,4]. However, backache experienced during pregnancy is more severe and disabling and present for a greater proportion of the time [1]. About 10% of women may be prevented by it from working [2] and over a third report that it interferes with daily life [3].

Though non-specific low back pain (radiating classically to buttocks and thighs)

Correspondence: Dr Shaheen Kausar, Assistant Prof of Obstetrics and Gynaecology, Allama Iqbal Medical College, Lahore.

is experienced by both pregnant and non-pregnant women, more severe pain arising from sacroiliac dysfunction is particular to pregnancy. It increases in prevalence with gestation concentrations and is often associated with symphyseal pain [2,3]. Relaxin, a polypeptide hormone that regulates collagen, softens the ligaments in preparation for parturition. Women with severe pelvic girdle pain in pregnancy have significantly higher serum levels of relaxin than those who are pain free, suggesting that increased joint laxity may be a causative factor [5]. Other associated factors are a history of backache [6] (in a sense a self fulfilling prophecy), parity [1,3,4] physically strenuous and unrewarding employment [2,3] and, paradoxically, younger age [3,6].

While ligamentous laxity and extra mechanical stress [5,7] would seem ample reason for women to experience severe back pain in pregnancy, other causes may be present. Though lumbar discs rarely prolapse de novo during pregnancy, pregnancy may exacerbate a pre-existing condition and seems to be a risk factor for postpartum disc prolapse [1]. Joint laxity may also predispose to spondylolisthesis.

The management of backache is not a glamorous aspect of medicine, yet it has attracted attention recently [8,9] because of growing evidence that previous strategies such as bed rest, corsets, traction, and physical treatment were valueless. Prevention may be easier than cure for pregnant women and mothers, to whom general advice on back care would seem to be eminently applicable. Take care not to trip, stumble, or move jerkily; bend at the hip and knee rather than stooping forward; avoid twisting the back; do not lift at arm's length; and carry a single load symmetrically in front, on the back, or on the head (would that Western women learnt this art).

If backache occurs, normal activity should be maintained as far as possible. For analgesia, paracetamol is preferred. Specific treatments advocated for sacroiliac joint

dysfunction include a trochanteric belt (a form of support for the pelvic girdle) and manipulation [2] which produces immediate relief that may not, however, be maintained.

Signs suggestive of nerve root compression—motor, sensory, or reflex changes of root distribution, or, more seriously, sphincter disturbance with sacral anesthesia suggesting involvement of the cauda equina—merit urgent referral. As conservative management is preferable to surgery during pregnancy, root pain may be managed with transcutaneous electrical nerve stimulation, while opioid analgesics are best avoided.

For many mothers backache resolves in the first few weeks after delivery, but for some it may continue for months, and for a few it first presents postpartum. Immediately after delivery, up to two thirds of mothers may suffer back pain [10]. This is sometimes attributed to epidural analgesia in labor. Regrettably, many investigators have failed to distinguish between localized trauma at the site of insertion, which is not uncommon but usually causes transient pain, and generalized backache or sacroiliac strain, which may be reported by 40% of mothers who do not receive regional analgesia [11]. Such symptoms may be a continuation of antepartum back pain or may result from excessive straining during the expulsive phase of labor.

Epidural analgesia for labor has been implicated in the development of chronic backache in two retrospective studies [12,13]. It was suggested that mothers receiving epidural analgesia adopted positions stressful to the lower back for prolonged periods and this, combined with muscle weakness and immobility, resulted in postnatal back pain [12]. However, when this theory was tested in a prospective study, neither motor block nor the use of epidural analgesia was associated with the development of chronic backache [14]. In both retrospective studies, antenatal backache was reported much less than expected (9% in one [12] and 25% in the other)

[13], whereas in the prospective investigation 51% of mothers reported backache during pregnancy [14]. It would seem that, when questioned months or years after delivery, many women forget that they suffered backache before delivery and instead choose to blame the epidural. Further prospective studies have also failed to demonstrate an association between epidural analgesia in labour and new postpartum backache [15,16]. When backache develops postpartum it is rarely severe and usually related to poor posture [13].

The most likely cause of postnatal back pain is simply that it is a continuation of antenatal problems [14] especially since, like antenatal backache, it is more often reported by younger mothers [15]. In the Swedish survey, pain persisted 18 months after delivery in over a third of the women who had backache during pregnancy [10]. Chronic postnatal backache was again associated with an increased frequency of previous backache and heavy monotonous work, and more severe discomfort during pregnancy was associated with a longer postnatal course.

Education is again the first step in effective treatment of chronic postnatal back pain. Mothers should be informed about back care and how best to nurse the new baby and can usually be reassured that, with appropriate care and attention to posture, backache should resolve. Oral analgesics may be required, but, should symptoms persist and a chronic pain syndrome develops, long term psychological support may be needed.

It is regrettable that not only women but also many medical practitioners happily refer to "backache following epidural" rather than "backache following childbirth". Given this climate of opinion, postnatal back pain has become a focus of attention and a common cause of litigation. Some women with postpartum backache seem to wish to believe that epidural analgesia has done the damage and reject out of hand any evidence to the contrary. For everyone's peace of mind,

women must be reassured that in no prospective study has the use of regional analgesia in labour been associated with an increased risk of chronic backache.

Objectives:

To assess the frequency, manifestations and the contribution of various factors to the development of backache during to assess the efficacy of various treatment modalities used for the management of backache in pregnancy.

Study Setting:

Descriptive study had conducted at the outpatient department of obstetric services, Jinnah Hospital, Lahore.

PATIENTS AND METHODS

Patients coming to the antenatal OPD in the month of February 2004 were asked about history of backache. Information was obtained from patients with a structured questionnaire who had history of backache. The study included 918 pregnant women who came for antenatal follow up or for any reason regarding pregnancy for consultation. The questionnaire, which consisted of several items, was administered to the subjects to evaluate the frequency of back pain and risk factors for BP during pregnancy.

RESULTS

A total 918 ladies with complete data were recruited in the study. Four hundred and thirty-two (47.05%) reported one or more significant episodes of back pain during their pregnancy. Of these 96 (22.22%) noted ongoing back pain at the time they became pregnant. Twenty-one patients (4.86%) were less than 20 years, 407 (94.21%) were in between 20-40 years of age and 4 (0.92%) were above of 40 years. Eighteen patients (4.16%) were less than 50 kg, 345 (79.86%) had weight in between 50-70 kg and 69 (15.97%) were more than 70 kg. Seventy-eight patients (18.05%) were primigravidas, 292 (67.59%) were multigravidas and 62 (14.35%) were grand multigravidas (table-1).

Three hundred and twenty-nine patients (76.15%) were delivered vaginally, 5 (1.15%) had instrumental deliveries and 98 (22.68%) had lower segment caesarean section (table-1). In the later group, spinal anesthesia was given in 60 (61.22%), general anesthesia in 34 (34.69%) and epidural anesthesia in 4 patients (4.08%). Ninety-six patients (22.22%) had backache before pregnancy and 336 (77.77%) had it during pregnancy (table-2). No treatment was taken in 23 patients (5.32%), rest in 297 (68.75%), analgesic in 106 (24.54%) and massage by 6 (1.39%) patients. Subjective relief was up to 50.0% with rest, 75.0% with analgesics and up to 50.0% with massage (table-3).

DISCUSSION

Prevalence and factors influencing pelvic joint and low-back pain during pregnancy can be associated with considerable disabilities as far as daily activities are concerned. Though uncommon, osteoporosis leading to vertebral or hip pain and fracture can occur during pregnancy and breastfeeding. Women concerned may have a pre-existing bone disease revealed by the physiological bone loss that occurs during pregnancy and breastfeeding. Other factors may influence bone mineral density variation such as osteomalacia, steroid or heparin administration [17].

Pregnancy can be a time of joy and exciting anticipation, yet for some the experience can be tarnished by pain, discomfort and feeling unwell. This is often because of many structural and hormonal changes that affect the spine and pelvis and related structures of joints and nerves. A pregnant woman's center of gravity shifts forward under the baby's weight. She also arches her back to accommodate the extra weight. But this stresses the facet joints and discs, and makes them sensitive - causing pain.

The results of this hospital based study shows that backache is a common complaint in pregnant ladies. Age, weight and mode of

delivery are not directly related to occurrence of backache. A similar study done in 1977 showed no evidence of association between backache during pregnancy and height, weight, 'obesity index', weight gain, or baby's weight [17].

It was more common among multigravidas especially grand multigravida. As general changes in laxity of supporting soft tissues occur under the hormonal influences, pain represents a relative 'over-use', with repetitive overloading of pre-weakened structures [10]. It is also more common in third trimester of pregnancy, as the baby descends into the pelvis, the head can cause pressure on the pelvis, which may be felt as pain. It was also more common in patients who had history of spinal anaesthesia. Although exact etiology is not known, it may be due to local inflammation. The aggravating factors were physically strenuous work and odd posture. Pain behavior and work variables also play an important role; the pregnant state can add variables to this mix, while options for treatment may reduce [19].

Bengal Kino (Kamar Kas) is obtained from the bark of a tree. It is used by (10%) of women in Halwa in a form known as Punjeeri considering it to be "hot" and for the relief and prevention of backache in puerperium and involution of uterus. It is known from ancient times in South East Asia and is used by Hakeems for this indication [18].

A similar study done in Pretoria (South Africa) has shown that the presence of severe low back pain was strongly affected by intensive farm work, residential area (rural) and gravidity of the mother [12]. Epidural analgesia for labor has been implicated in the development of chronic backache in two retrospective studies [15]. It was suggested that mothers receiving epidural analgesia adopted positions stressful to the lower back for prolonged periods and this, combined with muscle weakness and immobility, resulted in postnatal back pain [12]. However, when this theory was tested in a prospective

study, neither motor block nor the use of epidural analgesia was associated with the development of chronic backache [15]. In both retrospective studies, antenatal backache was reported much less than expected (9% in one [12] and 25% in the other), whereas in the prospective investigation 51% of mothers reported backache during pregnancy [14]. It would seem that, when questioned months or years after delivery, many women forget that they suffered backache before delivery and instead choose to blame the epidural. Further prospective studies have also failed to demonstrate an association between epidural analgesia in labour and new postpartum backache [15,16]. When backache develops postpartum it is rarely severe and usually related to poor posture [13]. These studies have shown epidural anaesthesia does not cause long-term backache [13].

Upright posture and activity throughout the day can logically lead to increased pain from paraspinal muscle strain, fatigue and subsequently exaggerated muscle, spinal and pelvic stress. Some patients complain of backache at night. It was proposed that increased venous flow through ascending lumbar veins, vertebral venous plexus, and paraspinal and azygous veins occurs particularly at night in response to redistribution of already large extra cellular and venous fluid volumes and to the mechanical vena caval compression, especially in the supine patient. Edema, stasis, and increased pressure occur in vertebral bodies and around neurovascular elements with subsequent pain [4].

Before a woman becomes pregnant encouraging her to become fit resolving existing back pain is the key to back pain prevention [14]. Most obstetricians recommend conservative treatment for gestational back pain. The use of support binder for pregnancy-low back pain is promising intervention and was well accepted by the participants [15]. Exercise and posture correction will minimize but not completely prevent lumbar or sacroiliac pain

during pregnancy. Sometimes simple

Table-1: Age, weight, parity and mode of delivery.

		No	%age
Age	Less than 20yrs	21	4.86
	21 - 40yrs	407	94.21
	More than 40yrs	04	0.92
Weight	< 50 kg	18	4.16
	50 - 70kg	345	79.86
	> 70kg	69	15.97
Parity	Primigravida	78	18.05
	Multigravida	292	67.59
	Grandmultigravida	62	14.35
Mode of Delivery	SVDs	329	76.15
	Instrumental Delivery	05	1.15
	LSCS	98	22.68

Table-2: Onset of backache.

	Before Preg.	During Pregnancy			Total
		1 st trimester	2 nd trimester	3 rd trimester	
	96	36 (10.7 %)	98 (29.2 %)	202 (60.1%)	432
%age of total	22.2%	77.8%			100%

Table-3: Treatment and subjective assessment of relief.

Treatment	No.	%age	Relief up to %
No Treatment Taken	23	5.32	0
Treatment Taken	Rest	297	68.75
	Analgesic	106	24.53
	Any Other	06	1.38
Total	432	100.0	

reassurance that symptoms are temporary is enough to alleviate a pregnant woman's concern about back pain. Chiropractic care has been shown clinically to be extremely beneficial in elevating back pain in pregnancy [16]. Wheat grass juice is highly recommended for all ills including backaches. The bright green juice contains plentiful nutrients needed to strengthen muscles, ease the nerves and keep the spine flexible [21].

Additional intervention included moist heat, soft tissue mobilization to the thoracolumbar paraspinals, manual stretching of the hip flexors, abdominal bracing, and wall squat exercises [18]. Therapeutic stretches and exercise are an excellent way to keep the pregnant body flexible, strong and

mobile [19]. Water gymnastics appear to reduce back pain in pregnancy. Acupuncture offers a natural alternative to taking painkillers and anti-inflammatories [21]. This was a hospital-based study showing strenuous work and improper posture as the most common causes of backache in pregnancy. The study may be different in general population.

CONCLUSION

About half of all pregnant women experience backache. Odd posture and heavy work were the most common causes of backache. About half of the patients took treatment mainly in the form of rest. Analgesics are also effective in relieving backache in pregnancy. It is advised that patient should be given special advice regarding posture and exercise.

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