Original Article

Low Backache in Pregnancy

Prevention of Low Backache in Pregnancy

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ABSTRACT

Objective: To document the effect of back care advice on the frequency and severity of low backache in pregnancy.
Study Design: Comparative cross sectional study
Place and duration of Study: This study was conducted in Antenatal Outpatient department of Obstetrics & Gynecology, Khyber Teaching Hospital, Peshawar from Jan 2012 to Jun 2012.
Materials and Methods: Advice on back care was made available to a group of primigravidae women as early in their pregnancy as possible. For comparison another group of primigravidae women for which no such advice was given was recruited. Both groups were followed throughout pregnancy for the occurrence of low back pain and its severity.
Results: The study comprised of 200 primigravidae with 100 women each in study group and control group. Seventy eight women in study group and 65 in the control group reached term. Among the study group 28.2 % experienced low backache in contrast to control group in which 56.9% developed back pain during pregnancy. In the study group 68.1% were having mild, 27.2 % moderate and only 4.5% severe pain. In the control group majority of women experienced moderate to severe pain. Furthermore the study group had pain much later in gestation as compared to control group.
Conclusion: Low backache was less common inprimigravidae women who receive advice on back care early in pregnancy. Low back pain, if present was less troublesome and severe than pregnant women for whom no such advice was available.
Key words: Low backache, Pregnancy, back care

INTRODUCTION

Low back pain represents a common pathophysiological process of pregnancy. A 9-month prevalence rate of approximately 50% is widely quoted in the literature.[1,2,3] The classical hypothesis of low back pain postulates that weight gain experienced during pregnancy results in postural changes that produce pain. Due to the anterior displacement of the center of gravity of the trunk and abdomen, women may unconsciously shift their head and upper body posteriorly over their pelvis, inducing hyperlordosis of the lumbar spine.[4] The belief is that this shift in load distribution generates stress on intervertebral disks, facet joints, and ligaments, promoting joint inflammation.[4,5]

While postural changes may not be clinically significant, the short time frame in which one's weight increases may play a role, albeit secondary, in the development of low back pain.[6,7] Weight gain may exceed the capability of trunk and pelvic musculature compensation and thus contribute to pain.[4,7] The weight of the gravid uterus may also directly compress on the base of the pelvis and lumbosacral plexus, and cause pain radiation to the buttocks and legs.[4,5,6]

Occupational factors may engender real and perceived changes in the levels of stress on the back. In fact, the rising prevalence of low back pain may be attributed to a rising trend among women to work throughout pregnancy in certain populations.[8,9] Vocational risk factors include sitting or constrained work posture; prolonged periods of standing, lifting, twisting, bending forward; inability to take breaks at will; and post-work fatigue. However, advising complete inactivity, such as prolonged bed rest, for low back pain is not recommended because of associated muscle weakness.[9,10]

Prevention of low back pain in pregnancy is possible with simple strategies like advice on back care. Type of work, physical demands, degree of monotony, and body posture when seated are some of the factors that require evaluation. Studies reveal amelioration of low back pain in pregnancy with improvement of these work conditions.[9,10,11] Back care includes: [12,13,14]

(1) Adopting good postural practices like: Standing up straight, Using a comfortably wide stance while standing up, resting one foot on a low step stool while standing for long periods of time, taking frequent breaks during work, sitting with care by using a chair that supports back and/or placing a small pillow behind lower back
(2) Wearing low heeled shoes with good arch support
(3) Avoiding bending at the waist to lift a small object and avoid lifting heavy objects.
(4) Sleeping on one side rather than on back and while sleeping on back, keeping the back straight.
(5) Bending one or both knees while sleeping. It might also help to place one pillow between knees and

other under one side to decrease pressure of gravid uterus on the back.

(6) Maintaining regular physical activity like walking.

This study aims to illustrate the effect of advice on back care during antenatal visits on the frequency and severity of low backache.

MATERIALS AND METHODS

Over a period of six months, 200 primigravidae with period of gestation less than 12 weeks and presented for antenatal care to Outpatient obstetrics & gynecology department were recruited to the study. They were randomly assigned to study and control groups with 100 women in each group. Women with existing low bachache were excluded from the study. Written informed consent was taken from all patients. Women in study group were given detailed advice regarding back care during pregnancy. Special emphasis was placed on teaching women to observe good postural practices, avoiding heavy weight lifting and taking rest during prolonged standing. Advice was facilitated by providing women with written advice and pictorial handouts for better understanding. Help was taken from second author in this respect. Control group was not given such an advice. Both groups were followed up at each antenatal visit at monthly intervals. Back pain was assessed at each visit and back care advice was further augmented. Severity of backache if present was documented by using "Dallas Pain Questionnaire", which is a 16-item visual analog scale. It evaluates in percentage the functional and emotional aspects of low back pain. Pain was categorized into mild, moderate and severe. Mean gestational age at which pain first developed was noted for both control group and study group.

RESULTS

There were 200 primigravidae,100 in each study group and control group. Mean age was 28 years with a range of 18 to 32 years. Mean period of gestation was 10 weeks with a range of 8.2 to 11.5 weeks. Among the study group 5 were lost to follow up while 78 reached term. In the control group 65 reached term and 6 were lost to follow up.

In the study group 28.2% (n=22) women experienced low backache during pregnancy. The mean gestational age at which back pain was first experienced was 32.2 weeks. Intensity of pain as assessed with "Dallas questionnaire" was mild in 15 women (68.1%) cases. In 6(27.2%) women pain was graded as moderate. It was severe in only one (4.5%) of woman.

In the control group 37(56.9%) developed pain, which was mild in 6 (16.2%) women. It was moderate in 22(59.4 %), while 9 (24.3%) women experienced severe pain. Mean gestational age at which pain first developed was 26.4 weeks.

Table No. 1: Characteristics of Study group and Control group

Variables	Study group	Control group
	n= 100	n=100
Age(years)	27.2	28.1
Period of gestation(weeks)	9.6	10.5
Weight(kg)	62.2	64.2
Height(inches)	63.2	64.1
Occupation: Working House wives	n= 15 n= 75	n= 11 n= 89
Gestational age at which backache first experienced (weeks)	32.2	26.4

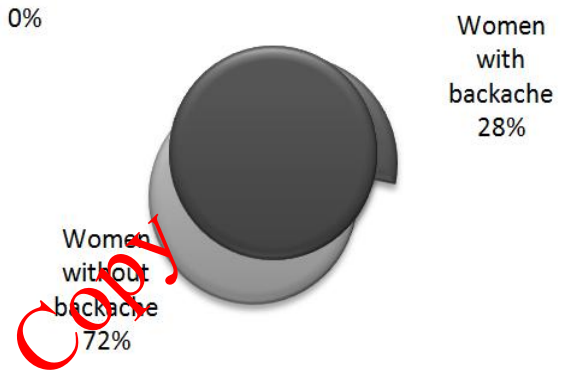

Figure No. 1: Frequency of Backache in Study group

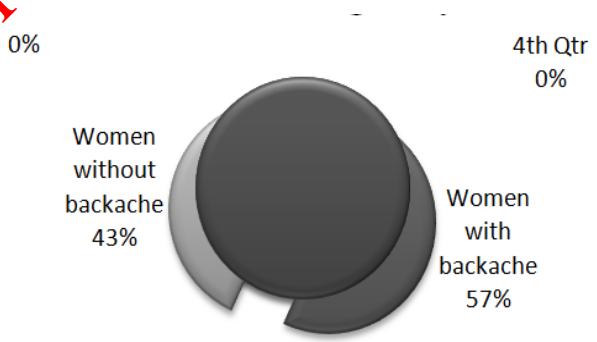

Figure No.2: Frequency of Backache in Control group

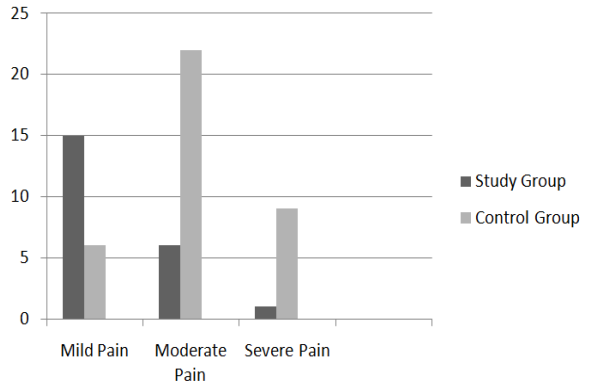

Figure No. 3: Comparison of Severity of Backache in study group and control group

DISCUSSION

An enduring debate in pregnancy care is whether low back pain is an inevitable or perhaps even essential component of a healthy pregnancy. Some have suggested that low back pain may perform a functional role as a protective agent by focusing women's attention on the physical stresses their bodies are undergoing, thereby making them more cautious during pregnancy.[15] Regardless, prevention, diagnosis and treatment of low back pain present formidable challenges to patients and their health care providers.

Low back pain and posterior pelvic pain previously were considered one entity, and past research has grouped these two conditions under the single classification of "low back pain." More recently, they have been discretely described and measured, and it is now evident that they require individual consideration for diagnosis and management.[16,17]

While no correlation has been demonstrated between low back pain and the health of a pregnancy, its onset has been reported to dramatically affect a patient's life. Brynhildsen et al[18] found that 19% of women with severe low back pain during pregnancy elected not to have another pregnancy due to their fear of low back pain recurrence. Low back pain may present a constant obstacle during pregnancy when performing activities of daily living. It reportedly results in sick leave from work in as many as 30% of pregnant women, persists >6 months in 6% of cases, and disturbs sleep in over one-third.[19,20]

Low backache in pregnancy can be prevented by adopting a number of strategies. In our study we studied the effect of a simple strategy, back care advice on the development of backache in pregnancy. We had specifically chosen primigravidae as most of the multigravidae have preexisting backache or due to poor back care in previous pregnancies they are already predisposed to back pain. Although they can still prevent aggravation of their pain by paying attention to back care. Brynhildsen et al[18] concluded from a long-term follow-up study that 94% of women who suffer from low back pain during pregnancy will develop low back pain in the subsequent pregnancy. Ostgaard et al[20] found that women with any history of back pain are 50% more likely to experience low back pain during pregnancy than women with no prior back pain and that pain will persist for a longer duration. Back care advice given to women in their first pregnancy, if properly followed is beneficial in prevention of backache right from the start.

The role of exercise has been studied in the prevention of backache in pregnancy. However we did not incorporate advice on exercise in our study. Majority of our population belong to low socioeconomic strata. Most are uneducated and it is very hard to make them understand proper exercises for back care. Back strengthening exercises if not done properly may do more harm than good. Furthermore, it is rather impossible for pregnant women to perform such exercises while living in a joint family system with small congested homes.

Our study showed that majority of women were unaware of what constitutes proper back care. They did not know the proper posture to adopt during sitting, standing, picking up and lifting things from the ground, lying down and sleeping. Adopting a proper posture is not only important in preventing backache in pregnancy but it is helpful in prevention of back pain in the long run even out of pregnancy. It is surely a part of healthy living practices.

The results of our study showed that back care advice played its part in preventing the development of back pain in pregnancy. Women who were ignorant of back care and were not given health education about back care, more than half of those experienced back pain during pregnancy. This is consistent with study done by Mantle MJ et al.[14] In contrast among those who receive such an advice only 28.2 % experienced pain which was mild in majority of cases. Ostgaard et al[20] applied the objective measurement of sick leave to determine the relative success of back education and training classes once back pain set in during pregnancy. This study reported a 12% decrease in sick leave time among pregnant women enrolled in an individualized back education and training program.

In Pakistan, so far no back care advice is given in the antenatal period to pregnant women coming to antenatal OPD. It is an effective and simple strategy to prevent backache in pregnancy. Incorporating such an advice as a part of standard antenatal care not only at the level of tertiary care but also at primary care level is the need of the day. Primary health care workers need to be trained about delivering such an advice and pictorial leaflets in simple language need to be provided to the pregnant women.

CONCLUSION

Back care advice constitutes a primary strategy in the prevention of backache in pregnancy. It is simple and easy to adopt. Making the women to understand proper back care will not only benefit them but will also be helpful in the health education of community in the long run. We recommend that the orthopedic and obstetric communities jointly engage in formulating strategies to prevent this problem. It seems naïve to conclude that low back pain is an inevitable component of pregnancy and is not preventable.

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