



Low Back Pain after Pregnancy in Indian Women

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ABSTRACT

Background: Low back pain after pregnancy is so common in Indian population that it is considered an essential part of post partum period. This is especially true for rural Indian population.

Aims: This study was undertaken to assess reduction in back pain after simple life style modification like regular brisk walking, and to compare the result with control group having routine post natal care.

Settings and Design: Tertiary teaching hospital in sub-urban India, randomized prospective study.

Material and Methods: Post partum back pain patients were randomly divided into two groups. Group A patients were encouraged to brisk walk from 6 weeks onwards. Group B patients were given routine post partum care without any instruction on regular fast walking.

Statistical analysis: Fisher test

Results: Results were statistically analyzed after 6 weeks. Two hundred and sixty five out of 300 patients had back pain (88%). Group A had relief in back pain in 82 % patients, while only 44% patients had relief of back pain in Group B. Results were statistically significant ($p < 0.0001$).

Conclusion: Back pain in post partum period can be prevented and treated by adding a simple life style modification like brisk walking in majority of patients.

Keywords : Back pain, pregnancy, post partum, developing countries, walking

Introduction:

Post partum period has a number of morbidities, ^[1] one of the most common among that is low back pain ^[2]. Most of the patients take it as an essential part of this period. Since cause is not well known, most of these back pains are not treated well. One common factor in post pregnancy period in South Asian countries is reduction in exercises and activities leading to exercises due to religious and social reasons. Social limitations like not being allowed to move out of home for 6 weeks, generalized perception in population that kitchen and house hold work is a big exercise, sex segregation causing problems in females going out for walks, lack of adequate and safe walking spaces etc cause females to lose physical fitness.

This prospective study was undertaken to assess reduction in back pain when stress was given to simple life style modification like regular brisk walking, and to compare the result with control group having routine post natal care.

Materials and Methods:

A prospective study was taken in tertiary referral teaching hospital for a period of two year between August 2010 and July 2012. All postpartum patients were enrolled in this study. Apart from routine post partum check up, leading questions were asked for low back pain. Patients complaining of low back pain were further enquired about the time of worst low back pain (morning, day or night), relation of low back pain to rest, sitting or lying down and any radiation of pain to legs or neurological symptoms.

They were examined for tenderness, signs of nerve root tension or neural deficit. Radiological and laboratory investigations were done in needful. Vitamin D was done for patients with diffuse body pains along with waddling gait. Patients not improving on exercises were also investigated for Vitamin D levels. In case of severe radiation or tenderness, radiological

investigations were also done.

All patients 6 weeks post deliveries were randomly divided into two groups. Group A patients were started on daily brisk walking wearing cushioned shoe wear. Patients were encouraged to progressively improve their stamina and walking speed and distance as per tolerability. Aim was to achieve three to four kilometers of brisk walking.

Group B patients were subjected to routine post partum visit, with no specific instruction to daily walking. Those patients with low vitamin D levels were also started on Vitamin D supplements (60000 IU every week for 10 doses, then repeat test).

All patients were examined at 3 months post pregnancy and questioned regarding back pain improvement and severity.

Pain was evaluated using 10- point Visual Analog Score (0-no pain, 10- worst pain). Any reduction in VAS on follow up visit was taken as improvement in back pain.

Patients not improving in 6 weeks were referred for Orthopaedic opinion and diagnosis recorded.

Results were statistically analyzed using Fisher test.

Results: Three hundred post partum patients were enrolled in the study. Low back pain was present in 265 patients (88.3%). Two hundred and thirty three patients completed the study. Thirty two patients were lost to follow up, opted out of the study, or were excluded from the study due to Orthopaedic reasons. Diurnal variation and relation of pain to activity was as per Table 1.

There were one hundred and twenty five patients (54 %) in

Group A and one hundred and eight Group B patients (46%).

One hundred and two patients (82 %) in Group A had improved back pain with walking in 6 weeks. Only forty eight Group B patients (44 %) had less back pain on follow up visit at 6 weeks. Result was statistically significant ($p < 0.0001$)

Thirty five patients (13.2%) needed Vitamin D supplementation, distribution of whom was equal in both groups.

Three patients worsened on walking, and orthopaedic opinion was taken. One of the patients was diagnosed to have bilateral sacroillitis, while two patients had early dorsolumbar tuberculosis, for which they were advised anti tuberculous therapy and restricted activity.

Discussion: Low back pain is one of the most common morbidities affecting a postpartum female, especially in the Indian subcontinent, Middle East and Africa [1,2]. Most patients blame pain to epidural injections [3,4] or consider it an essential physiological part of this period. But unfortunately, many are not able to become pain free despite a long time since a successful pregnancy. A reason for such high percentage of pain is lack of physical fitness in majority of females [5]. This coupled with low nutritional status causes either annoying or disabling low back pain.

Many reasons exist for low physical fitness. Most females in these countries have no concept of scientific exercise. They consider kitchen work and house hold work to be the best kind of exercises. Many females go for a post prandial pleasure walk, and consider this to a daily exercise. Social taboos in many parts of India restrict a female from venturing out of house for 6 weeks. Many societies restrict females to go out without a male member, and hence make them dependent on husband's company for exercise. Since most males have better physical fitness due to outdoor nature of job, they may not be ready for reducing their sleep. Parks and walking tracks are rare in many countries, and safety further prevents a female from going out for regular exercise. For those few females who take medical help for back pain also fail to benefit as doctors and physiotherapists in many countries are not aware of fitness concept and reasons for back pain. Lack of sleep due to breast feeding, coupled with daily house hold work compounds the problem.

All these factors combine to lower the fitness levels of an already unfit female, causing low back pain.

Several patients also need Vitamin D supplements due to inadequate antepartum supplementation, lack of sun exposure

or poor nutrition [6,7]. Such patients also need impact activity to utilize increased nutrition, as body assimilates what it feels the need [8].

Low impact exercises are important as they improve generalized fitness, including back and abdominal muscles without increasing foot, knee or back pain [9]. Exercises are continued with good cushioned shoes, till breathlessness and tachycardia. Over period of weeks, stamina and walking distance increases. And this is associated with reduced back pain. Exercises such as jogging may also be useful, but end up increasing knee or back pain in significant proportion of patients due to impact (10). Jogging may be continued later, once patient feels fit and painless.

Most of such back pains are felt on work during day or on getting up in morning. Such patients feel better on walking and on rest during night hours. If pain remains significant at all times, not having any relieving factors, then other differential diagnosis should be ruled out.

Various abdominal and back exercises are prescribed world over with varying degrees of success [11,12]. Many primary care doctors may not know these exercises. Also such exercises may be leaving many muscles unattended, and generalized fitness exercises should always be the primary tool for back pain. Other abdominal and back exercises may be added on to improve the results.

Occasional other reasons for pain like infections or sacroillitis will not improve on exercises, and can be diagnosed on clinical and radiological features.

Conclusions: Back pain in post partum period can be prevented and treated by adding a simple life style modification like brisk walking in majority of patients.

Table 1: Relation of back pain to activity and diurnal variation

	Number of patients	Percentage (%)
Morning	125	47
Day	84	32
Night	56	21
Walking	63	24
Sitting	145	55
Lying	57	21

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