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Influence of Conventional Therapy in Post Natal Women with Back Pain

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Abstract

Background: Post-partum period brings joy as well as pain for women. It is period after delivery till 42 days. In most of women, problems like leg pain, back pain, floppiness of abdominal muscles, edema and extremities, spinal problems, problems in breast feeding arise. Postnatal back pain including lumbosacral region, pelvic girdle and sacroiliac pain is very common presentation. Evidences show that post natal low back pain is very common. Various studies show that in first year after delivery it ranges from 21% to 82%. It also has on and off period. Re-occurrence of pain is seen in first 6 months. In caesarean section, 51% of women noticed pain back by 1 month and 78% by 6 months. In vaginal delivery it reoccurred in 55% women at 1 month and 85% in 6th month. Conventional physiotherapy interventions are worldwide accepted one and practiced on large scales in various circumstances. Conventional approaches for back pain which includes core muscle exercises, yogic postures, walks, runs, hydrotherapy exercises and cardiorespiratory fitness training. Role of physiotherapy for women's health is an upcoming area in developing country like India. It needs to be evaluated in both rural and urban set ups. **Method:** 494 subjects fulfilling inclusion and exclusion criteria were included. Conventional training was given for 6 weeks. Outcome measures used were focusing on Pain (Visual Analogue Scale), Range of motion (Modified Schober Test), abdominal muscle strength (Manual Muscle Testing) and quality of life (Oswestry Low Back Disability). **Result:** Student t-test was used for statistical analysis. The results showed significant changes in all the outcome measures but was time consuming lacked in establishing confirm evidences. **Conclusion:** Conventional therapy reduced back pain and improved quality of life but was time constrained. Further evaluation needs to be done for better results.

Keywords: Back Pain, Conventional Training, Physiotherapy, Post Natal

1. Introduction

Post partum period which is also known as puerperium is the time after birth where all the physiological changes that have taken place in pregnancy returns back to normal. Postpartum period involves first six weeks after childbirth. This period is of utmost importance that requires care of both mother and child. The terms postpartum and postnatal needs to be understood. Postpartum is related to mother's condition and postnatal is related to the child. Postnatal period is very challenging for women. It could result with many complications such as cardiovascular diseases, sepsis, infections, excessive bleeding etc. Pregnancy related low back pain, pelvic girdle pain are important risk factors associated with post partum related pain at the end of first three months and third to six months interval time[1]. In majority of women, back pain was the major factor for decreased functional mobility. There are diverse reasons for back pain. It could be known case of low back pain, related or not to previous pregnancies, low back pain surgery, anxiety etc[2]. F. Turgutet *et al.,* found prevalence of back pain after delivery, they concluded that it was 59.1% at the time of delivery and more than 40% women had pain even after 6 months[3]. During routine examination almost 67% of women had back pain directly after delivery and 37% had it at follow up[4]. Women who had severe back pain in the index pregnancy and those who had difficulty in reducing weight in pre pregnancy suffered from persistent back pain even after 24 months[5]. The prevalence of postpartum back pain in women

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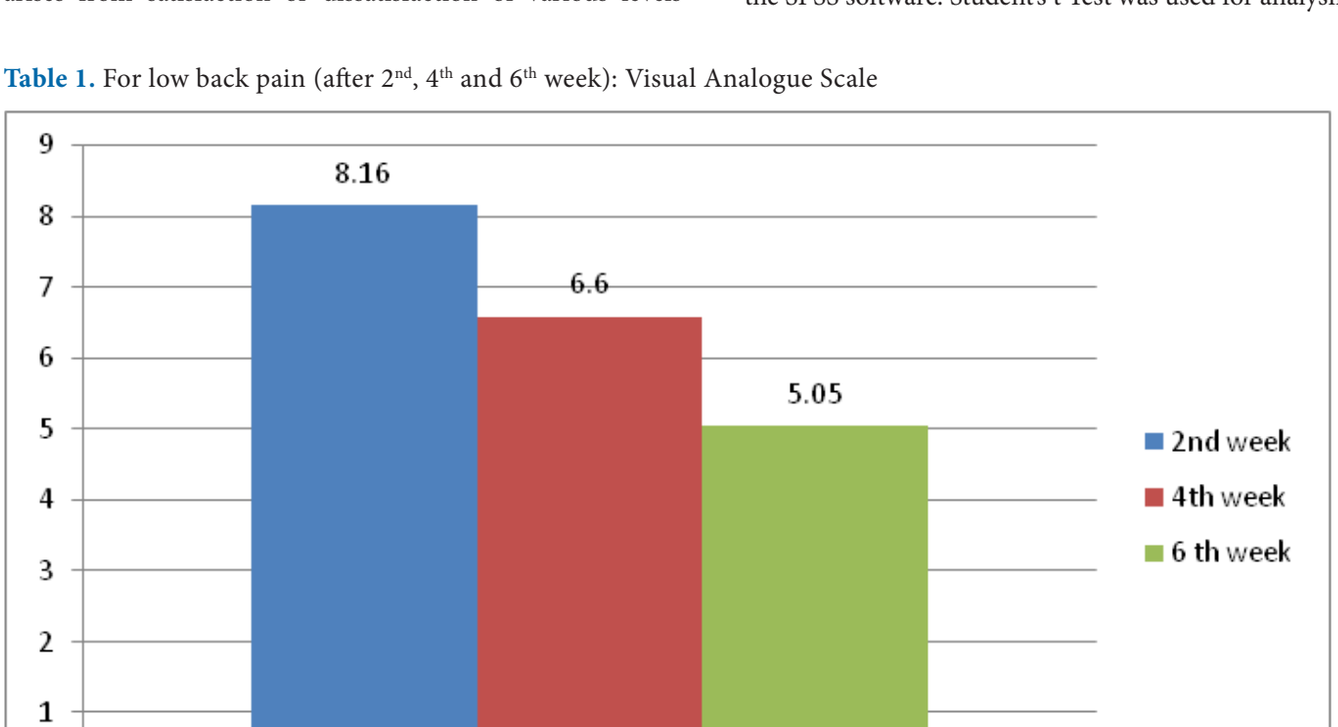
with caesarean section is 56.67% whereas with normal vaginal delivery is 33%[6]. In majority of women pregnancy related changes in musculoskeletal system persists after delivery which causes the muscles to ache. In majority of times low back pain goes unnoticed due to the motherhood phase. Women tend to neglect it and continue which compromises their quality of work and life. If it is not managed timely, it could lead to major health issues in future. Women may have to live with complaints like sciatica, leg pain, upper back pain, postural abnormalities, abdominal weakness which lead to serious health concerns, overall fatigability and decreased performance. Continuing unhealthy living could be an invitation to problems like osteoporosis, arthritis etc. in near course. Physiotherapy has shown to improve abdominal muscle strength in spinal cord injury cases thereby reducing pain[7]. Physiotherapy remains the frontline treatment for chronic low back pains[8]. There was no add up benefit of specific spinal stabilization exercises to a conventional physiotherapy package for patients with recurrent low back pain[9]. Role of conventional physiotherapy also needs to be evaluated in various types of low back pain especially in post partum women. Conventional modalities like Electrical stimulation and taping have been shown to be effective in managing Diastasis Recti in postnatal period[10]. Quality of Life (QOL) is a sense of feeling good and performing well and it arises from satisfaction or dissatisfaction of various levels including health, utilization, socioeconomic state, intellectual-emotional state and family. In this study role of traditional exercises which are routinely practiced everywhere is analysed.

2. Materials and Methods

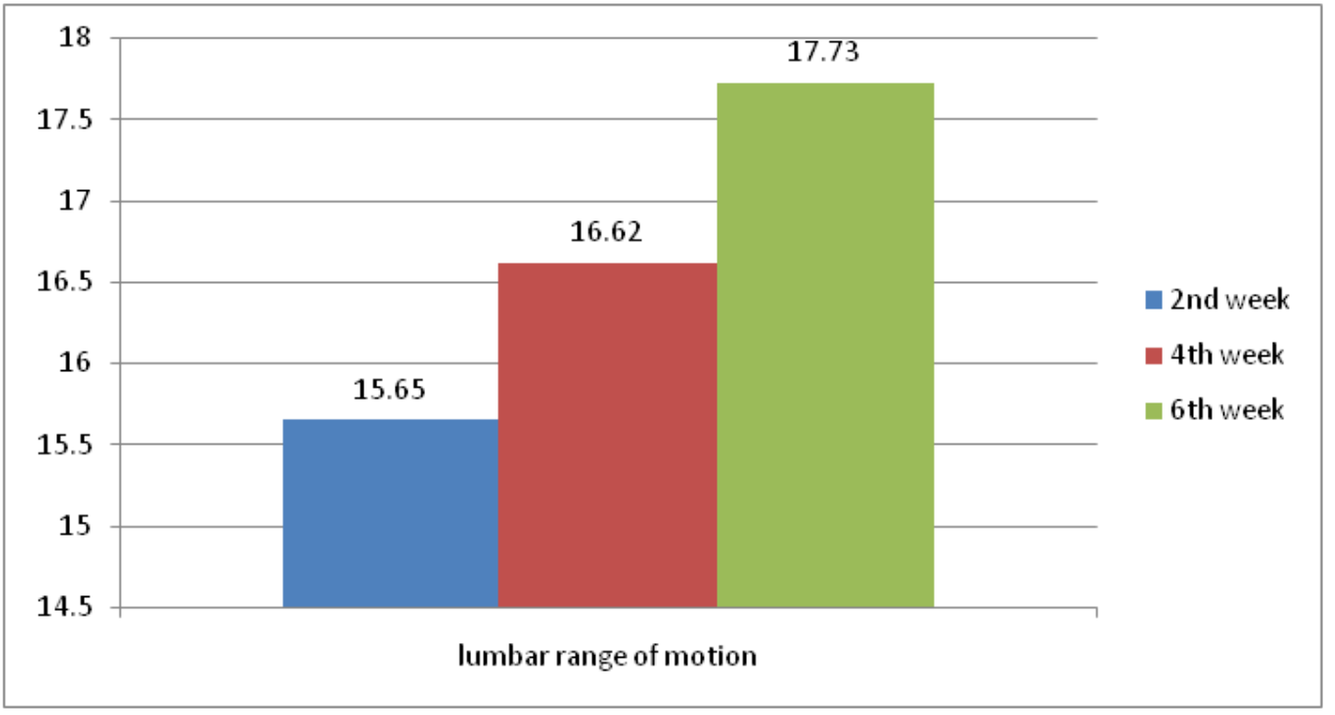
The study commenced after getting ethical clearance from institutional ethics committee, KIMSDU Karad. This experimental study was conducted to see the effects of conventional therapy on back pain in postnatal women. It was randomised clinical trial where 494 subjects were included in the study. Baseline assessment was done at the beginning. Outcome measures used were Visual analogue scale for pain, Modified Schober Test for range of motion, Manual muscle testing for abdominal muscle strength and Oswestry Low Back Disability for quality of performance. These outcome measures were target to pain, range of motion, abdominal muscle strength and quality of life in postnatal period. On the initial day, the subjects were explained about the treatment protocol, time duration required for single session, clothes that should be worn during the session, food that should be taken before and after the session. The subjects were informed to tell if they feel any aggravation of symptoms. The total treatment duration was for 6 weeks. The results were analyzed statistically using the SPSS software. Student's t Test was used for analysing it.

Table 1. For low back pain (after 2nd, 4th and 6th week): Visual Analogue Scale



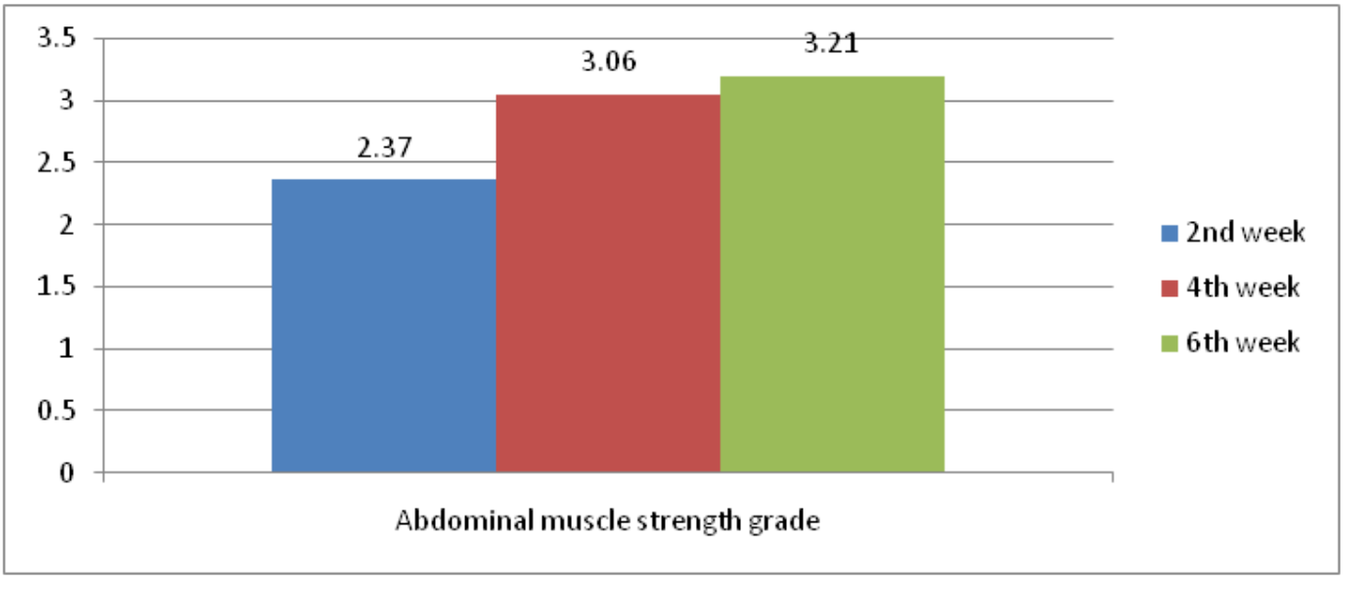
P value is < 0.0001, is considered extremely significant.

Table 2. For lumbar range of motion (after 2nd, 4th and 6th week): Modified Schober Test



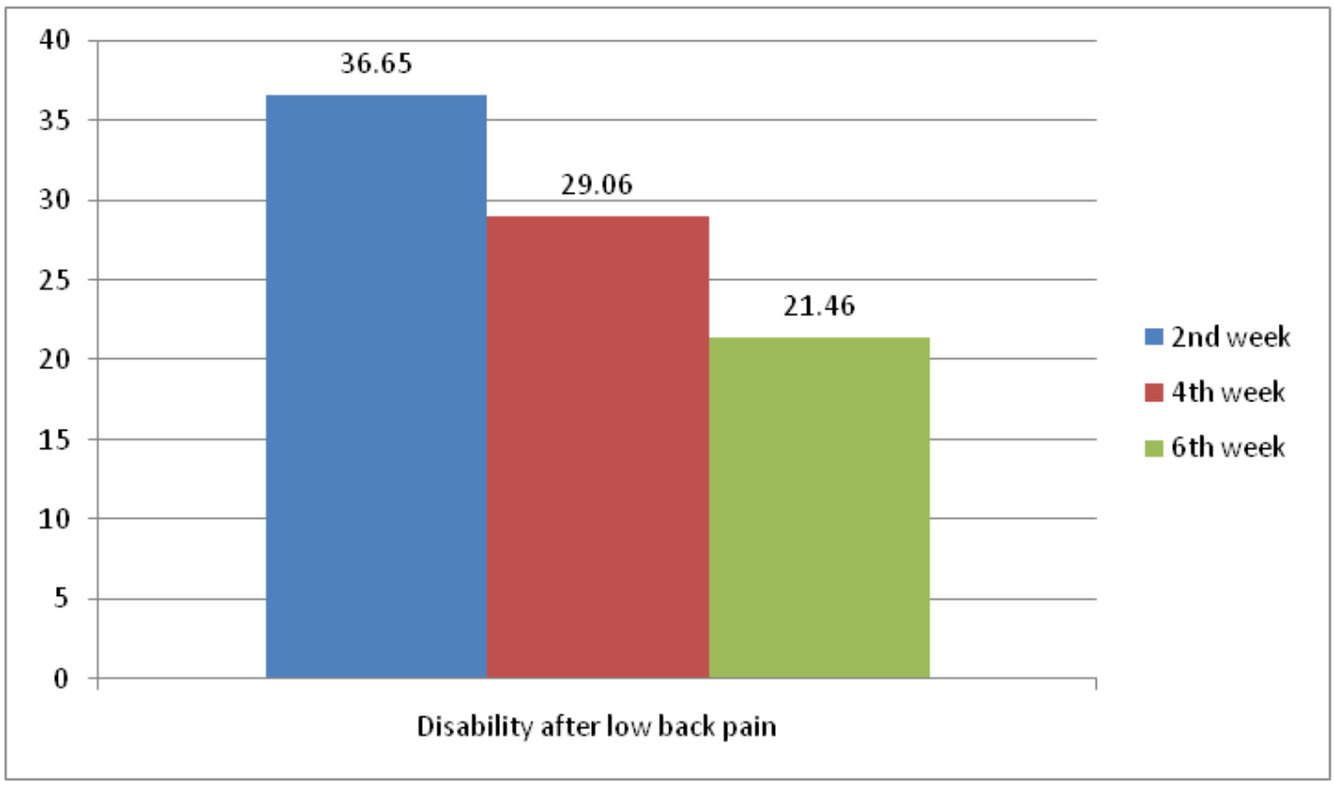
P value is < 0.0001, is considered extremely significant.

Table 3. For abdominal muscle strength (after 2nd, 4th and 6th week): manual muscle testing grades



P value is < 0.0001, is considered extremely significant.

Table 4. For quality of life (after 2nd, 4th and 6th week): Oswestry Low Back Disability



P value is < 0.0001 is considered extremely significant.

3. Results

Results were analysed for various outcome measures. Following changes was found

4. Discussion

Pregnancy alters the bio mechanics of body especially the musculoskeletal system. Metabolic supply to the back may be altered due to vascular changes. The commonest complaints post pregnancy is lower back and pelvic girdle pain[11]. Few women complain of regular back pain (21.1%). These women were older by age. Conventional exercises have shown good outcomes for back pain.

4.1 Back Pain

In conventional training, traditional strengthening and stretching exercises are used. It focuses mainly on general exercises concentrating on all the factors responsible for pain. Conventional exercises help reduce the back pain but effects are for short term period. It was observed that the rate at which the symptoms are reduced requires longer time. These exercises are not time bound. The possible reason may be that conventional exercises do not have cause and effect relationship. They are not directed towards single problem at a time. They generally work on global muscles and not specific ones[12].

4.2 Range of Motion

It was found that spinal range of motion is progressively improved with conventional exercises but the expected range was not fully achieved which was 6 weeks. In these exercises continuous loading on spine occurs, there is varying range on intradiscal pressure due to altered positions which is an inappropriate position during exercise[13]. Conventional exercise lacked in consistent practice and maintaining equilibrium in static and dynamic pattern of training.

4.3 Abdominal Muscle Strength

In this study there was slight improvement in grades of muscle strength from 2.37 to 3.21. Traditional abdominal exercises are effective in activating upper as well as lower abdominal muscles[14]. As time required to reduce pain is longer, the strength also improves slowly. Moreover lack of specificity in training the core muscles might have increased the time for

improving the strength. Conventional exercises use a single joint to accomplish the movement. They lacked in specificity, progression, overload, adaptation and reversibility. All these factors might have been responsible for slow outcome in muscle strength.

4.4 Disability in Post Natal Period

Low back pain affects quality of movements in post natal women. Challenges faced by women during 2-9 months postpartum may be many. Few important ones may include social support, lack of education about newborn care after discharge, postpartum depressions[15]. Immune system needs to be boosted for improving the overall performances. Conventional exercises lacked on focusing the challenges which might have taken longer time for achieve desirable effects. Post natal change in the body requires its own time. Exercise regimes needs to focus on all the components. It becomes very difficult by focusing only on conventional regimes to minimise the disability and improve quality in performance.

5. Conclusion

Conventional therapy reduced back pain and improved quality of life but took longer time than expected. Further evaluation needs to be done for better results.

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