

Case study on lowback pain using Physioball, yoga And Dietary Measures.

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Abstract:

Introduction: Prevalence of lowback pain increases and peaks between 35 and 55 years (Joshi and Chopra 2009). Benefits of yoga are better than exercise alone as it offers a combination of physical exercise with mental focus, self awareness with good posture, self care along with relaxation (Helen etal 2005).

Physiotherapy intervention is a common form of conservative management for chronic lowback pain (Gold by etal 2006). There are also many other treatment modalities (Traction, massage, tens, inter ferrential therapy and low level laser therapy) which lack scientific evidence regarding their efficiency in the treatment of CLBP (Van middle Koopetal 2011).information regarding best treatment practice of CLBP is continually evolving, and thus this case study an innovative means of combining yoga postures, Physioball and resisted exercises in the rehabilitation of chronic lowback pain gets significant. It is extensively documented that lowback pain is one of the most common and costly pandemic medical conditions affecting upto 80% of people worldwide in their lifetime (Guzman etal 2007) and 40% of men will develop chronic lowback pain (O Sullivan 2005). The main consequences of back problems are pain, disability, limited functions of daily activities and decreased productivity (including work loss (Kendall etal 1997). Chronic lowback pain presents as a persistent disabling. Condition and has a profound effect on quality of life (Stall etal 2005). The prognosis is less favourable and it results in considerable socio economic costs as a result of repeated treatments, long term work absenteeism and social support (Koes etal 2006) and disability due to chronic lowback pain is increasing faster than any other form of in capacity (Ferrei etal 2006).

Key words:

I. Introduction

Mrs.XXX, Aged 54 Years, Mesomorph, Home Maker, Graduate in Nutrition Mother of Two Adult children, post menopause C/O Low back Pain with inability to sit and move around.

Waist Circumference: 86 cm, Body Mass Index: 20 kg/cm²

H/O: Normotensive, Non diabetic, complaints of chronic lowback pain of two years duration with intermittent usage of NSAID and conventional physiotherapy means. NMRI revealed multiple degenerative changes at cervical, Lumbar Vertebrae and orthopaedic Surgeons have adviced to undergo Lumbar Laminectomy

Her Physical Condition as on January 2015.

- Ambulant for short distance with Lumbar List.
- Tenderness over Lower Lumbar region and Left Sacroiliac joint positive.
- SLR Left 60, right 70 Increases Radicular symptoms.
- Exagrated Lumbar Lordosis.
- Bilateral Genu Recurvatum, left Genu Valgum and Bilateral hamstring tightness.
- Restricted spinal Movements mainly forward flexion.
- Bilateral Hip Abductors, Extensors and Knee Extensors 3/5.
- Restricted Knee Flexion in inner range by 25 on Left, Right 15 (available active Knee flexion on Right 0-100, Left 0-105).
- Transfers and Bed mobility:

Painful for all transfers, Supine Lying and sitting Increases Radicular symptoms.

- Spine extensors Grade III/ V, Abdominal Muscles Grade II/ V.

Her physical conditions following Ten Treatment Sessions are as below:

- Reduction in Radicular symptoms down Left Leg, Able to Walk and Sit for short duration with Lumbosacral support.
- Bed Mobility and transfers improved and being Painless.
- SLR has improved on Left to 70, Right 80.

- Knee flexion has increased on Left to 0-120 and on Right to 0-130.
- Oswestry disability score has come down to 70% from 90%.

Treatment used during this period includes:

- Strengthening of Hip Abductors, Extensors and spinal Extensors using Physioball.
- Veerasan in spine Lying, Bhujangasan in prone Lying.
- Resisted isometric activities of Abdominal Muscles.
- Her further Rehabilitation Weekly Twice for 3 Months (Feb 2015- April 2015) without any Non Steroidal Anti-inflammatory drugs or any Electrotherapy modalities includes:
- Exercises at floor using Physioball to strengthen the Spine, Abdominal Muscles, Hips and Knees in Supine, side and Prone Lying Postures.
- Yoga Postures such as Veerasan Katichakrasan in sitting on Physioball, Bhujangasan with Knees resting at Physioball, Cat and Camel with Stomache resting on Physioball, Where Manual resistance given to both Hip Extensors and hamstrings. Also Dhanurasna for a stronger contraction and Butterfly postures.



Pushing The Ball Downwards At Ankle Level Resulting in Isometric Co Contraction of Abdominal, Anterior Hip And Knee Muscles Along With Resistance Provided by her own body Weight.

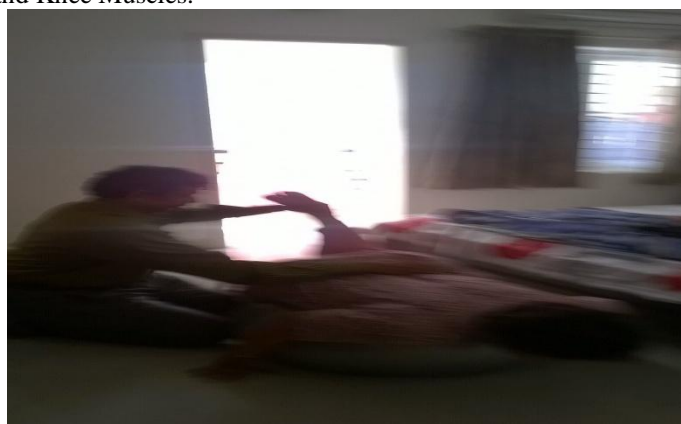


Subject Doing Bhujangasan using Physioball and Against her own body weights resistance.

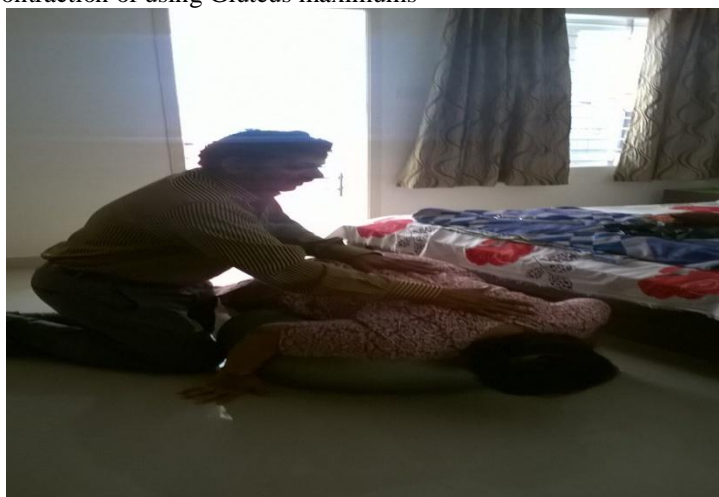


Pushing the ball downwards at Knee level isometric

Co Contraction of Hip and Knee Muscles.



Isometric resistance contraction of using Gluteus maximums



A) Resistance spinal extension using Physioball in prone position



B) Resistance spinal extension using Physioball in prone position

- **Key point of this case study report** are that with due means of conservative Yoga, Physiotherapy, Physioball Exercises this subject to having undergoing surgery is avoided along with sustained progress, improved quality of life along with due commitment and dietary care taken by the subject are major worthy outcome.
- Subject is able to walk more than ½ an hour.
- The entire floor Level Activities she can perform with ease, which is unique when compared with conservative. Physiotherapy treatment outcome alone strengthening of co existing muscle weakness in hips Knees, and feet are to be considered is a key focus in spine rehabilitation.
- She is able to sit for more than 2 hours continuously and travel without Lumbar Sacral belt.
- Oswestry disability score has come down to from 70% to 26%.
- Presently apart from a weekly one session of using Physioball and resisted exercise yoga postures, she performs daily Exercises by herself, walking for ½ hour.
- She is able to perform all five prayers, having faith in Islam.

II. Conclusion:

Unique features of the case study findings include:

- A. Strengthening of weakness other peripheral joint muscles.
- B. Able to achieve floor level activities in line with Indian culture.
- C. Rehabilitation gets good shape with her spiritual faith of prayers. She is able to perform for 5 times/ day.
- D. Level of confidence for daily routines, Travelling social activities have improved as reflective of Oswestry disability score, so physiotherapy should focus on complete rehabilitate of patients with back pain and not only on decreasing the symptoms.

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