



CODEN [USA]: IAJ PBB

ISSN : 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4081459>Available online at: <http://www.iajps.com>

Research Article

**MANAGEMENT OF CHRONIC LOW BACK PAIN WITH
TRACTION THERAPY**Dr Nosheen Akhtar¹, Dr Hafsa Malik Aulakh², Dr Sameera Abbasi²¹Services Institute of Medical Sciences, Lahore.²Rawalpindi Medical College**Article Received:** August 2020**Accepted:** September 2020**Published:** October 2020**Abstract:**

Introduction: Low back pain (LBP) is a leading cause of disability and work loss in the United States.²⁴ Physical therapists may choose from myriad intervention options for LBP, but the effectiveness of many of these options is questionable. **Objectives:** The main objective of the study is to analyse the management of chronic low back pain with traction therapy. **Material and methods:** This descriptive study was conducted in Services institute of medical sciences, Lahore during June 2019 to July 2020. The data was collected from 100 patients of chronic low back pain. The initial evaluation, including a history and physical examination, of patients with chronic low back pain should attempt to place patients. **Results:** The data was collected from 100 patients of low back pain. Respondents were mostly women (60%), were distributed relatively uniformly across the defined age groups, and worked primarily in hospital-based and private outpatient settings (30.8% and 58.3%, respectively). Their entry-level degrees were uniformly distributed across bachelors, masters, and doctoral degrees (33.5%, 31.8%, and 31.1%, respectively), whereas relatively few earned post baccalaureate certificates (3.5%). **Conclusion:** It is concluded that Lumbar traction seems to produce positive results in nerve root compression symptoms. Data in degenerative and discogenic pain are debatable.

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Please cite this article in press Nosheen Akhtar et al, **Management Of Chronic Low Back Pain With Traction Therapy**,
Indo Am. J. P. Sci, 2020; 07(10).

INTRODUCTION:

Low back pain (LBP) is a leading cause of disability and work loss in the United States.²⁴ Physical therapists may choose from myriad intervention options for LBP, but the effectiveness of many of these options is questionable. One option is spinal traction, in which forces applied via motorized pulleys, manual methods, or through autotraction are thought to distract tissues and joints in the lumbar spine. Low back pain (LBP) is one of the most common complaints in the general population, affecting about 70-80% of the population at some point in life [1].

Moreover, LBP is a common cause of disability and work loss in developed countries, creating a large social and economic burden on society [2]. When we talk about low back pain, we have to deal with a great variety of clinical situations including acute, subacute (4 to 12 weeks) or chronic LBP. Furthermore, LBP can be due to several spine or “extra-spinal” diseases as nerve root compression, discogenic pain, rheumatologic or hip-related problems [3].

The management of these conditions, that have to be clearly distinguished, comprises a wide range of different intervention strategies including surgery, drug therapy (NSAID’s, corticosteroids, opioid) and nonmedical interventions (rest, physical therapy, ozone therapy). There are numerous clinical guidelines on LBP produced worldwide, yet lack of consensus about effectiveness. Physiotherapy (PT) interventions for the management of LBP are wide and variable, but the efficacy of many is still questionable [4]. One of the treatment options is traction, which may be applied in many forms: motorized lumbar traction (traction applied by a motorized pulley), autotraction (the patient exerts the traction force through a pulling or pushing action), gravitational traction (traction through a suspension device), or manual traction (forces exerted by the therapist). The supposed mechanical effects of traction are vertebral separation and widening of intervertebral foramen in order to relieve pain and recover joint function by reducing pressure on discs or nerves [5].

Objectives

The main objective of the study is to analyse the management of chronic low back pain with traction therapy.

MATERIAL AND METHODS:

This descriptive study was conducted in Services institute of medical sciences, Lahore during June 2019 to July 2020. The data was collected from 100 patients of chronic low back pain. The initial evaluation,

including a history and physical examination, of patients with chronic low back pain should attempt to place patients. For patients who have back pain associated with radiculopathy, spinal stenosis, or another specific spinal cause, magnetic resonance imaging (MRI) or computed tomography (CT) may establish the diagnosis and guide management. The medical history should include questions about osteoporosis, osteoarthritis, and cancer, and a review of any prior imaging studies. Review of systems should focus on unexplained fevers, weight loss, morning stiffness, gynecologic symptoms, and urinary and gastrointestinal problems. The physical examination should include the straight leg raise and a focused neuromuscular examination.

Laboratory assessment, including erythrocyte sedimentation rate, complete blood count, and C-reactive protein level, should be considered when red flags indicating the possibility of a serious underlying condition are present.

The data was collected and analysed using SPSS 19. All the values were expressed in mean and standard deviation.

RESULTS:

The data was collected from 100 patients of low back pain. Respondents were mostly women (60%), were distributed relatively uniformly across the defined age groups, and worked primarily in hospital-based and private outpatient settings (30.8% and 58.3%, respectively). Their entry-level degrees were uniformly distributed across bachelors, masters, and doctoral degrees (33.5%, 31.8%, and 31.1%, respectively), whereas relatively few earned post baccalaureate certificates (3.5%). The majority practiced full time (48.2%) or near full time (33.0%). Among traction users, patient positioning was generally influenced by clinical examination findings. While the most commonly indicated position for administering traction was supine with knees and hips flexed in a moderate flexion bias (37.4%), many respondents indicated that patient positioning would be diagnosis specific (34.4%). Most indicated that a clinical presentation consistent with de- generative joint disease (58.0%) or a herniated disc (75.9%) would influence their decision to use a flexion bias or extension bias, respectively, when administering traction.

Among traction users, manual traction was the most common mode of delivery (68.3%). A mechanical traction table permitting multiplanar angles was the second most frequently used mode (44.9%), followed

by home traction devices and autotraction techniques at 33.9% and 27.2%, respectively.

Table 01: Management of chronic low back pain with traction therapy

Variables	Frequency
Load, % body weight	
20-30	56
30-40	60
40-50	44
>50	14
Treatment time, min	
Nerve root with radicular features secondary to a herniated disc	
<5	17
6-10	83
11-15	51 (35.3)
16-20	65 (35.3)
21-25	31 (6.9)
>25	35 (3.4)
I would not use traction for this condition	43 (4.5)
General mobilization of a stiff spine	
<5	15 (2.0)
6-10	45 (6.1)
11-15	19 (25.8)
16-20	79 (24.2)
21-25	37 (5.0)
>25	8 (1.1)
I would not use traction for this condition	26 (35.9)
Degenerative joint/facet disease	
<5	14 (1.9)
6-10	3 (7.2)
11-15	19 (29.6)
16-20	21 (28.8)
21-25	47 (6.4)
>25	12 (1.6)
I would not use traction for this condition	82 (24.6)
Generalized pain relief	
<5	19 (2.6)
6-10	41 (5.5)
11-15	72 (23.2)
16-20	55 (20.9)
21-25	30 (4.1)
>25	7 (0.9)
I would not use traction for this condition	16 (42.7)

DISCUSSION:

Traction to treat spinal disorders has been around for a long time (since at least 1800 BC). It became very popular in the late 20th century for the treatment of lumbar disc lesions with back and leg pain (sciatica). High-dose traction with manipulation has become the most commonly prescribed type of traction used today [6]. High-dose refers to using a pull of 30 to 50 per cent of the body weight. Mechanical traction should not be used for anyone with severe osteoporosis (brittle bones), ligamentous instability, local infection, or bone cancer. Patients with fractures, hernias, or high blood pressure are also excluded from the use of traction. Traction for the lumbosacral spine is not advised during pregnancy [7]. It is used most often for patients with subacute or CLBP. Overall, the evidence points against the use of traction as a treatment for CLBP. Research has not been done to show who (if anyone) might benefit the most from this treatment. Studies comparing traction to other treatment (hot packs, manipulation, and exercise) have not had consistent results. Since traction can be applied in different ways with different positions and force, it's not surprising outcomes vary from study to study [8]. The use of mechanical traction in the management of patients with chronic low back pain/degenerative spine disorders has generally not been endorsed by evidence-based practice guidelines. Diab et al. aim to investigate the effects of lumbar extension traction with stretching and infrared radiation compared with stretching and infrared radiation alone on the lumbar curve, pain, and intervertebral movements of 80 patients with chronic mechanical low back pain (CMLBP) [9]. They stated that lumbar extension traction with stretching exercises and infrared radiation was statistically superior to stretching exercises and infrared radiation alone for improving the sagittal lumbar curve, pain, and intervertebral movement in CMLBP [10]. Beyki et al. compared the outcomes of prone and supine lumbar traction in patients with chronic discogenic low back pain. They noted that prone traction was associated with improvements in pain intensity and ODI scores at discharge but they cannot imply a long lasting relationship between the traction and outcomes [11].

CONCLUSION:

It is concluded that Lumbar traction seems to produce positive results in nerve root compression symptoms. Data in degenerative and discogenic pain are debatable. A subgroup of patients with low back pain (peripheralization of symptoms with extension movement and/or a positive crossed straight leg raise

test) may exist for whom mechanical traction is an effective treatment.

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