Outcomes After a Prone Lumbar Traction Protocol for Patients With Activity-Limiting Low Back Pain: A Prospective Case Series Study

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Abstract

Objective

To determine outcomes after administration of a prone lumbar traction protocol.

Design

Prospective, longitudinal, case series.

Setting

Suburban, chiropractic practice.

Participants

A total of 296 subjects with low back pain (LBP) and evidence of a degenerative and/or herniated intervertebral disk at 1 or more levels of the lumbar spine. We excluded patients involved in litigation and those receiving workers' compensation.

Intervention

An 8-week course of prone lumbar traction, using the vertebral axial decompression (VAX-D) system, consisting of five 30-minute sessions a week for 4 weeks, followed by one 30-minute session a week for 4 additional weeks.

Main Outcome Measures

The numeric pain rating scale and the Roland-Morris Disability Questionnaire (RMDQ) were completed at preintervention, discharge (within 2 weeks of the last visit), and at 30 days and 180 days after discharge. Intention-to-treat strategies were used to account for those subjects lost to follow-up.

Results

A total of 250 (84.4%) subjects completed the treatment protocol. On the 30-day follow-up, 247 (83.4%) subjects were available; on the 180-day follow-up, data were available for 241 (81.4%) subjects. We noted significant improvements for all postintervention outcome scores when compared with preintervention scores ($P<.01$).

Conclusions

Traction applied in the prone position using the VAX-D for 8 weeks was associated with improvements in pain intensity and RMDQ scores at discharge, and at 30 and 180 days after discharge in a sample of patients with activity-limiting LBP. Causal relationships between these outcomes and the intervention should not be made until further study is performed using randomized comparison groups.

Key Words: Back pain; Decompression; Intervertebral disk; Lumbar region; Rehabilitation; Traction; Treatment outcomes

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