Abstract

Effects of Vitamin D and Lumbar Spinal Stenosis Pain

Bridget Stover, FNP-BC, ANP-BC, Pain Management-BC, DNPc

**Issue:** Pain management is often suboptimal in patients with lumbar spinal stenosis (LSS). Vitamin D supplementation may offer additional pain control as an adjunct therapy in the management of chronic low back pain for LSS patients. **Purpose:** The study employed a retrospective chart review over a three-month period to compare the effect of vitamin D supplementation on the perceived pain of two groups of LSS patients with chronic low back pain. Both groups received standard pain management therapy. The intervention group received vitamin D 2,000 IU daily as adjunct supplement to traditional pain management modalities.

**Methods:** A randomized retrospective chart review using a two-group pre/post test design was implemented. Subjects were divided into intervention and control groups. Data mining included demographics and perceived pain perceptions at baseline and at three months using a standardized visual analog scale (VAS). Pain perceptions as quantified on the VAS pain scale were compared between intervention and control patients. Fifty eight charts have been reviewed. Treatment options were provided in keeping with the standard of care in the pain clinic population. **Results:** Two-sample t-testing was used comparing age and weight between and vitamin D intervention. The analysis concluded that a 95% Confidence interval (CI) of age (p= 0.316) and weight (p= 0.676) were not significant. Paired t-testing concluded that the change in pain after three months of vitamin D therapy was not significant with a CI of 95% (t= -0.165, p=0.871).

**Conclusion and Implications:** Vitamin D as an adjunct to pain management in LSS patients showed no significant pain changes over a three-month period. Continued experimental research with greater controls is needed for further validity of research findings.

Bridget B Stover RN, MSN, ANP-BC, FNP-BC, Pain Management BC, DNPc, bstovermot@aol.com
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