Wolters Kluwer Health | Lippincott Williams & Wilkins

Spine An international journal for the study of the spine

Vitamin D Deficiency and Chronic Low Back Pain in Saudi Arabia.

Epidemiology

Spine. 28(2):177-179, January 15, 2003.
*Al Faraj, Saud MD *; Al Mutairi, Khalaf MD +*

Abstract:
Study Design. Initial assessment involved 360 patients (90% women and 10% men) attending spinal and internal medicine clinics over a 6-year period who had experienced low back pain that had no obvious cause for more than 6 months. The patients ranged in age from 15 to 52 years.

Objectives. To investigate the contribution of vitamin D deficiency as a cause for idiopathic chronic low back pain, to find a simple and sensitive test for screening patients with low back pain for vitamin D deficiency, and to determine the correlation between the vitamin deficiency and pain.

Methods. A biochemical assay of serum calcium, phosphate, alkaline phosphatase, and 25-hydroxy vitamin D level was performed before and after treatment with vitamin D supplements.

Results. Findings showed that 83% of the study patients (n = 299) had an abnormally low level of vitamin D before treatment with vitamin D supplements. After treatment, clinical improvement in symptoms was seen in all the groups that had a low level of vitamin D, and in 95% of all the patients (n = 341).

Conclusions. Vitamin D deficiency is a major contributor to chronic low back pain in areas where vitamin D deficiency is endemic. Screening for vitamin D deficiency and treatment with supplements should be mandatory in this setting. Measurement of serum 25-OH cholecalciferol is sensitive and specific for detection of vitamin D deficiency, and hence for presumed osteomalacia in patients with chronic low back pain.