

Abstract

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Vitamin D deficiency is associated with anxiety and depression in fibromyalgia.

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BACKGROUND: Fibromyalgia is a complex problem in which symptoms of anxiety and depression feature prominently.

OBJECTIVE: Low levels of vitamin D have been frequently reported in fibromyalgia, but no relationship was demonstrated with anxiety and depression.

METHODS: Seventy-five Caucasian patients who fulfilled the ACR criteria for fibromyalgia had serum vitamin D levels measured and completed the Fibromyalgia Impact Questionnaire (FIQ) and Hospital Anxiety and Depression Score (HADS).

RESULTS: Deficient levels of vitamin D was found in 13.3% of the patients, while 56.0% had insufficient levels and 30.7% had normal levels. Patients with vitamin D deficiency (<25 nmol/l) had higher HADS [median, IQR, 31.0 (23.8-36.8)] than patients with insufficient levels [25-50 nmol/l; HADS 22.5 (17.0-26.0)] or than patients with normal levels [50 nmol/l or greater; HADS 23.5 (19.0-27.5); Kruskal-Wallis ANOVA on ranks $p < 0.05$]. There was no relationship with global measures of disease impact or musculoskeletal symptoms.

CONCLUSION: Vitamin D deficiency is common in fibromyalgia and occurs more frequently in patients with anxiety and depression. The nature and direction of the causal relationship remains unclear, but there are definite implications for long-term bone health.

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