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Hair calcium and magnesium levels in patients with fibromyalgia: a case center study.

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BACKGROUND: Fibromyalgia is not an uncommon condition. Because its cause has yet to be identified, treatment of the condition has been empirical; frequently, outcomes are unsatisfactory. Some patients with fibromyalgia were observed to have high hair calcium and magnesium levels compared with healthy subjects. Because of this and because supplementing calcium with magnesium to fibromyalgia subjects reduced the number of tender points detected by digital palpation, it is worth investigating if patients with fibromyalgia have significantly higher hair calcium and magnesium levels than their healthy counterparts. **OBJECTIVES:** To determine the degree of difference between the hair calcium and magnesium levels in patients with fibromyalgia and in healthy subjects. **METHODS:** The study was retrospective and of paired design. Twelve patients who had hair analysis performed and met the criteria of fibromyalgia defined by American College of Rheumatology (1990) were selected consecutively from clinical files. These patients were then matched by age and sex to 12 healthy subjects selected consecutively from the same patient files who had hair analysis performed for checkup purposes. Nonparametric Wilcoxon rank sum tests were used to determine if the hair calcium and magnesium levels in patients with fibromyalgia were significantly higher than that of the control subjects. **RESULTS:** Wilcoxon rank sum tests showed that patients with fibromyalgia had significantly higher calcium and magnesium levels than the control subjects at $\alpha = .025$ and $.05$, respectively. **CONCLUSION:** In the presence of high hair calcium and magnesium levels, calcium and magnesium supplements may be indicated as an adjunctive treatment of fibromyalgia.

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