

Vitamin D eases pain in women with diabetes, depression

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Few studies have looked at how pain affects depression treatment in patients with type 2 diabetes and none have evaluated the role of vitamin D supplementation.

Vitamin D decreases pain in women with type 2 diabetes and depression, according to a study conducted at Loyola University Chicago. These findings were presented at an Oct. 24, 2013 research conference at Loyola's Health Sciences Campus.

Type 2 diabetes is associated with depression and pain, but few studies have looked at how pain may affect the treatment of depression in patients with type 2 diabetes and no studies have evaluated the role of vitamin D supplementation on this association.

Researchers in this study tested the efficacy of weekly vitamin D2 supplementation (50,000 IUs) for six months on depression in women with type 2 diabetes. Depression significantly improved following supplementation. In addition, 61 percent of patients reported shooting or burning pain in their legs and feet (neuropathic pain) and 74 percent reported numbness and tingling in their hands, fingers, and legs (sensory pain) at the beginning of the study. Researchers found a significant decrease in neuropathic and sensory pain at three and six months following vitamin D2 supplementation.

"Pain is a common and often serious problem for women with type 2 diabetes and depression," said Todd Doyle, PhD, lead author and fellow, Department of Psychiatry & Behavioral Neurosciences, Loyola University Chicago Stritch School of Medicine (SSOM). "While further research is needed, D2 supplementation is a promising treatment for both pain and depression in type 2 diabetes."

Loyola researchers have received funding from the National Institute of Nursing Research to conduct a trial comparing the effects of two different doses of vitamin D3 supplements on health outcomes in women with diabetes.

"Vitamin D has widespread benefits for our health and certain chronic diseases such as type 2 diabetes," said Sue Penckofer, PhD, RN, study co-author and professor, Loyola University Chicago Marcella Niehoff School of Nursing. "This NIH grant will allow us to shed greater light on understanding the role that this nutrient plays in managing the health of women with diabetes."

Other study authors included Patricia Mumby, PhD, professor, Department of Psychiatry & Behavioral Neurosciences, Mary Anne Emanuele, MD, professor, Department of Endocrinology & Metabolism, SSOM; Mary Alice Byrn, PhD, assistant professor, Department of Nursing, St. Mary's College, Notre Dame, Ind.; and Diane E. Wallis, MD, Midwest Heart Specialists, Downers Grove, Ill.