

High-dose rhBMP linked to increased incidence of cancer

4 October 2013



(HealthDay)—Patients receiving high-dose recombinant human bone morphogenetic protein-2 (rhBMP-2) as part of spine surgery have an increased risk of cancer and may be at risk for major complications, according to two studies published in the Sept. 4 issue of *The Journal of Bone & Joint Surgery*.

In an effort to examine the risk of new cancers in patients receiving high-dose rhBMP-2, Eugene J. Carragee, M.D., from the Stanford University School of Medicine in Redwood City, Calif., and colleagues used data from a multicenter trial involving patients with degenerative lumbar spine conditions who underwent single-level instrumented posterolateral arthrodesis with high-dose rhBMP-2 in a compression-resistant matrix (rhBMP-2/CRM; 239 patients) or autogenous bone graft (control; 224 patients). The researchers found that the incidence rate of new cancer events was 3.37 per 100 person-years in the rhBMP-2/CRM group versus 0.50 in the control group (incidence rate ratio, 6.75 at two years). At five years, the incidence of cancer events was still significantly greater in the rhBMP-2/CRM group.

Addisu Mesfin, M.D., from the University of Rochester in New York, and colleagues examined the short- and long-term outcomes and medical and [surgical complications](#) linked to high-dose

rhBMP-2 in a cohort of 502 patients who received high-dose rhBMP-2 as part of spinal surgery. The researchers found that the rates of intraoperative complications, perioperative major surgical complications, and perioperative major [medical complications](#) were 8.2, 11.6, and 11.6 percent, respectively. No significant association was found for rhBMP-2 with radiculopathy, seroma, or [cancer](#).

"Major surgical complications occurred in 11.6 percent of [patients](#), and 11.6 percent experienced major medical complications," Mesfin and colleagues write.

One or more authors from both studies, or their institutions, disclosed a financial tie with an entity in the biomedical arena.

More information: [Abstract - Carragee Full Text \(subscription or payment may be required\)](#)
[Abstract - Mesfin Full Text \(subscription or payment may be required\)](#)

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APA citation: High-dose rhBMP linked to increased incidence of cancer (2013, October 4) retrieved 12 October 2022 from <https://medicalxpress.com/news/2013-10-high-dose-rhbmp-linked-incidence-cancer.html>

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