High-dose rhBMP linked to increased incidence of cancer

October 4 2013

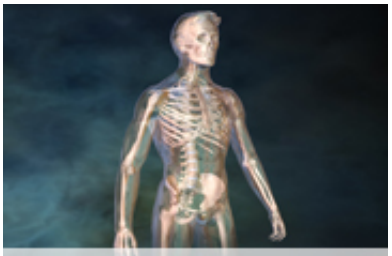

Image courtesy of Blausen Medical

(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
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