Hemostatic Agents Can Help Control Bleeding

BY DOUG BRUNK

PORTLAND, ORE. — As the chief of dermatologic surgery at the University of Washington, Seattle, Dr. Daniel Berg likes to have a handful of nontraditional topical hemostatic agents handy. One is bone wax, a combination of beeswax and isopropyl. He’s had to use it twice in his 15 years of practice to tamponade bleeding of a bone: once on the skull and once in the nasal region.

“You warm up the bone wax, pack it, and stuff it into [the bleeding site] like Silly Putty,” Dr. Berg said at the annual meeting of the Pacific Dermatologic Association. “Consider having a box of it on standby if you do any surgery, particularly on the scalp.” Possible complications of the agent include a granulomatous reaction, infection, and impediment of osteogenesis. He keeps a box of bone wax packets in his office, and he replaces it every few years when it expires.

A new alternative to bone wax is Ostene, a water-soluble alkylene oxide copolymer manufactured by Ceremed Inc. that dissolves in 24 hours (Dermatol. Surg. 2008;34:431-45). Dr. Berg also discussed Gelfoam, an absorbable gelatin sponge manufactured by Pharmacia and Upjohn, which he uses for diffuse oozing.

“Topical bovine thrombin is another agent Dr. Bergs likes to have at his disposal. Supplied as a sterile powder that has been freeze dried in the final container, along with mannitol and sodium chloride, thrombin directly converts fibrinogen to fibrin. It is sprayed on the wound or saturated on Gelfoam.”

Dr. Berg concluded his presentation by discussing hemostatic agents that contain microfibrillar collagen, such as Avitene, manufactured by Davol Inc. These products attract blood platelets and, according to Dr. Berg, tend to be more effective than Gelfoam. "I've only used this once in a patient that kept bleeding on aspirin and Plavix [clopidogrel]." he said.

Rare complications include allergy to bovine products, disseminated intravascular coagulation if the product gets into large vessels, and immune-mediated coagulopathies.

Dr. Berg reported having no conflicts to disclose.