Use of tumescent anesthesia decreases risk for lidocaine toxicity

Use of tumescent anesthesia allows for equal anesthetic distribution across large areas while decreasing the likelihood of lidocaine toxicity, according to a presentation at the American Society for Dermatologic Surgery annual meeting.

“One of the ways that we’ve looked to limit lidocaine toxicity in dermatologic surgery is through the advent of tumescent local anesthesia, … [which] involves the delivery of large volumes of dilute anesthesia, typically 0.05% to 0.1% lidocaine, with a ratio of 1 to 1 million of epinephrine delivered directly into the subcutaneous fat,” Ashley Wysong, MD, MS, of the department of dermatology at UNMC College of Medicine, said. “The advantages of tumescent anesthesia … include improved efficiency, less bleeding, better cosmetic results, more rapid postoperative recovery and reduced risk of lidocaine toxicity.”

Wysong reported using tumescent anesthesia in her practice in reconstruction of large Mohs surgery defects. In skin reconstruction, the advantages range from reduced trauma in hydrodissection of the subcutaneous tissue to less risk for infection. It is also used in the treatment of venous insufficiency via minimally invasive thermal or non-thermal techniques in which tumescent anesthesia is infiltrated into the saphenous space, between the saphenous fascia and the muscular fascia, to surround and compress the saphenous vein.

Finally, Wysong reported using tumescent anesthesia in her practice for deep facial resurfacing. In a retrospective uncontrolled study, the addition of triamcinolone solution to the anesthetic allowed for an “extra bump” in treating...
acne scarring, she said.

Other ways of using tumescent anesthesia in dermatologic surgery include lipoma and cyst removal, hair transplant, hidradenitis suppurativa, phlebectomy and liposuction, Wysong said.