Preventive Practices Can Blunt Suture Needle Sticks

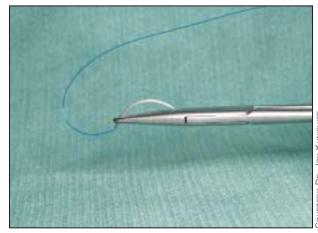
BY BRUCE K. DIXON
Chicago Bureau

CHICAGO — Most of the estimated 1,000 suture needle sticks endured by surgeons and surgical residents in the United States each day can be prevented by protecting the needle point within the needle driver, according to Dr. Joy Kunishige.

"Before the needle and needle driver are either handed off to the assistant or returned to the surgical tray, pivot the needle 90 degrees toward the instrument joint," said Dr. Kunishige, a dermatology resident at the University of Texas M.D. Anderson Cancer Center in Houston.

"Next, close the needle driver on the body near, but not on, the shank of the needle," she said. "The needle point should be directed toward and almost touching the driver, thereby disarming the needle point."

To avoid dulling the needle, do not grasp the point by the needle driver, Dr. Kunishige said during a poster presentation at the annual meeting of the American Soci-



The needle should be grasped in the needle driver as shown in the image above to avoid exposing the point.

ety for Dermatologic Surgery.

"These precautions are especially important in Mohs surgery because you're using the same tray and the same

instruments throughout the procedure," she said in an interview. "If your procedure involves three layers, you're going to use the instrument three times plus once more for reconstruction, so the sharps is being constantly moved around, potentially exposing several people to the risk of a needle stick."

A simple and inexpensive solution for disarming a needle that is being temporarily put aside is to use a brightly colored piece of foam, such as that available at arts and crafts stores. "We keep the foam piece in the upper righthand corner of the field and just stick our needle into that," Dr. Kunishige said.

The worst mistake is to leave an exposed needle on a patient's chest where it can fall when the patient moves. "Placing a tray on a patient's chest can be a mine field," she said

Even when a needle stick does not cause infection, follow-up testing can cost up to \$3,000, she added.

"If you make these little precautions habitual, you'll greatly reduce the risk of needle sticks in your workplace," Dr. Kunishige concluded.

Hybrid Technique Offers Yet Another Tx for Varicose Veins

BY PATRICE WENDLING

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CHICAGO — A technique that combines occlusion coils and alcohol sclerosis is the latest addition to the array of catheter-based approaches available to treat varicose veins.

"We have yet another tool in an area where I don't think we needed another tool; it's coil occlusion and sclerosis," Dr. Thom W. Rooke, head of vascular medi-

cine at the Mayo Clinic, Rochester, Minn., said at a symposium on vascular surgery sponsored by Northwestern University. "It's definitely a feasible alternative to stripping or other catheter ablation mechanisms."



Potential advantages include no tumescent anesthesia and no potential for thermal skin damage. Radiofrequency and laser technologies have the potential—despite the use of tumescent anesthesia—to cause thermal injury, particularly in patients with relatively thin skin or in whom the veins are very superficial; they also have the potential to produce clots in the saphenous vein that may propagate into the femoral vein with the attendant risks of pulmonary embolism.

The new procedure is relatively simple and easy to incorporate, if the practitioner is already using fluoroscopy and catheterization in the daily routine. "And the final punch line: This [procedure] may be very cost effective, although we haven't analyzed that yet," he said.

Dr. Rooke reported results from a retrospective study of 96 patients (mean age 53 years) with incompetent saphenous veins, in whom the use of coil occlusion and sclerosis resulted in complete occlusion of the target vein in 94% of 119 limbs, and partial occlusion in the remaining 6%.

Nearly all of the patients were being treated for significant symptoms, such as discomfort/pain, edema, stasis changes, and ulceration, rather than for cosmetic indications.

Venous refilling rates dropped from a preprocedural mean of 11.6 mL/minute per 100 g (which corresponds to "moderate" venous incompetence at the Mayo Clinic), to a "normal" value of 5.4 mL/min per 100 g after the outpatient procedure. At a mean follow-up of 14

The coil occlusion and sclerosis technique is easy to incorporate and could prove to be cost effective.

DR. ROOKE

weeks, symptoms were resolved or markedly improved in 94% of patients, were partially improved in 4%, and showed no change in 2%.

A small, asymptomatic arteriovenous fistula in the

region of the saphenofemoral junction was observed on follow-up ultrasound in one patient; two patients developed symptomatic superficial phlebitis; and none developed deep venous thrombosis, said Dr. Rooke, professor of vascular medicine at the Mayo Medical College, also in Rochester. In three limbs, the coils were inappropriately placed and had to be repositioned.

Interventional radiologists have been using various occlusion coils and sclerosing agents (typically ethanol) for decades to successfully and safely obliterate arteriovenous malformations, varicoceles, and other unwanted veins, so their application to varicose veins seemed a logical extension to physicians at the Mayo Clinic, Dr. Rooke explained.

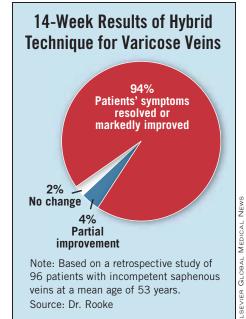
The technique begins with a local injection of lidocaine to anesthetize the skin just above or below the knee, followed by an ultrasound-guided puncture of the greater saphenous vein. Fluoroscopy is used to guide a 5 French end-hole catheter to the saphenofemoral junction, after which a 4- to 14-mm Nester coil (Cook Medical Inc.) is placed near the junction

with one end anchored into an appropriately positioned tributary. Once this coil is secure, 2 to 10 additional coils (average, 3) are added as needed.

After radiographic confirmation of occlusion is obtained, lidocaine (3 cc of 1% solution) is injected into the lumen of the vein and allowed to sit for a few minutes. The catheter is then slowly withdrawn, and ethanol (1-6 mL) is infused throughout the length of the saphenous vein.

Finally, the catheter is withdrawn, and full-length, graduated compression stockings are applied to the leg. The stockings should be worn continuously for 3 days, followed by daytime-only usage for about 10 days. Patients can ambulate immediately after the procedure, with no limitations placed on their routine, Dr. Rooke said.

In some cases, sodium tetradecanal sulfate (3%) was used instead of absolute alcohol because there are anecdotal reports of toxicity, especially to the lungs, with ethanol, Dr. Rooke said in an interview. However, most of the clinic's radiologists, who are more familiar with the alcohol, have returned to using ethanol as their preferred agent.



Coil occlusion and sclerosis have also been used to treat perforator veins and the shorter saphenous vein, with good results, he added. Dr. Rooke reported that he has no conflict to disclose with regard to this research.

