

Venous Stasis Ulcers Similar in Patients With Diabetes, Nondiabetics

Increased compliance with compression stockings can decrease the high recurrence rate of venous stasis ulcers in patients with diabetes.

BY CONNI BERGMANN KOURY, EDITOR-IN-CHIEF

While diabetes is a major risk factor for venous stasis ulceration (Figure 1), not much study has been done on the topic in the diabetic population. According to a presentation at the American Diabetes Association 65th Annual Meeting and Scientific Sessions in San Diego, the clinical profile and outcomes among diabetic patients with venous stasis ulcerations are similar to previous reports in mixed diabetic and nondiabetic populations.

While recurrence of these wounds is common, it can

Only 12% of patients who diligently wore compression stockings had a recurring venous stasis ulcer.

be avoided with diligent use of compression stockings.

“Chronic venous insufficiency has a prevalence of anywhere from 3% to 5% in the population aged >65 years,” said Robert P. Wunderlich, DPM. “Recognized risk factors include obesity, congestive heart failure and, of course, diabetes.” Dr. Wunderlich is a consultant with XLHealth Corporation.

Typical presentation in a patient at risk for venous stasis ulceration is obviously xerotic, excoriated skin, edema above the ankle and hyperpigmentation. These factors increase the skin’s susceptibility to break down in the presence of ulceration.

VENOUS ULCERS IN DIABETIC PATIENTS

Venous stasis ulceration is a common and debilitating complication of chronic venous insufficiency, Dr. Wunderlich said. “If you do a search on venous ulcers in Index Medicus, you’ll find that there have been over 2,000 articles published on venous ulcers. But surprisingly, there haven’t been any published that involved a purely diabetic population.”

Therefore, the purpose of this study was to describe clinical characteristics and outcomes of venous stasis ulcers in people with diabetes. The investigators used a cohort study sample from a population of 1,666 diabet-



Figure 1. Gangrenous venous stasis ulcer in a patient with diabetes.

ic patients taken from a diabetic foot specialty clinic in southern Texas. "We looked at encounter data over a 4-year period and identified 81 diabetic patients that had a diagnosis of venous insufficiency and venous ulcer," Dr. Wunderlich said. "This cohort was identified from a prospective risk assessment and follow-up."

In the clinical setting, the Profore boot had better compressive properties than other compression boots.

Wound care for these patients was relatively standardized, he said. The ulcer was irrigated with saline and debrided if necessary, although venous ulcers typically do not require much debridement. "We used Sorbsan (Bertek Pharmaceuticals) absorptive calcium alginate as a primary dressing and Profore (Smith & Nephew) multilayer compression bandage system for patients who had adequate arterial flow," Dr. Wunderlich said.

INADEQUATE FLOW REFERRED

Patients with inadequate arterial flow were promptly referred for vascular consultation, and patients with active wounds were seen every 7 to 10 days.

The average age of patients was 72 years. The group was predominately female, duration of diabetes was 13 years and they all fit the medical criteria for obesity, with an average BMI of 36. The wound area averaged <3 cm² and ankle-brachial indices indicated adequate perfusion, he said.

Overall, the healing time was 12.5 weeks. "However, one of the interesting things that we didn't expect to find was that the group treated with compression and had adequate arterial flow actually had a healing time slightly longer than the mean," Dr. Wunderlich said. "The group that was not treated with compression had a shorter healing time." He noted, however, that the sample size was only seven patients.

Thirty-eight percent of the patients had at least one incidence of documented noncompliance in their charts.

"Most commonly, these were things like missed appointments. In some cases the patients would remove their compressive dressing prior to their appointment," he said.

Only three of the patients were hospitalized, all for cellulitis, and no patient underwent an amputation either during the active wound phase or in the follow-up phase.

The average follow-up in this study was 18.2 months, Dr. Wunderlich said. During that time the investigators identified an ulcer recurrence rate of 63%. "However, if you look at the recurrence as it relates to patients who were compliant with their compression stockings, the recurrence was only 12.3% in patients who wore them diligently," he said.

TYPICAL PATIENT: OLDER, OBESE

The typical stasis ulcer patient among this diabetic population was older, obese and had diabetes for >10 years. Dr. Wunderlich said that these issues may contribute to noncompliance in these patients. Specifically, patients in this population have multiple medical problems, which may cause them to overlook their lower extremities and deal with more urgent health problems.

"Obesity, of course, makes it difficult for patients to examine their feet and legs as they should. It also makes it nearly impossible for them to put on their compression stockings, which we identified as being important in preventing recurrence," he said.

The healing time of stasis ulcers was less than others have seen in nondiabetic populations, Dr. Wunderlich and colleagues reported. "We think that there are a few reasons for this: One is that we used Profore (Smith & Nephew) as opposed to an Unna Boot (ConvaTec). Profore is recognized as having better compressive properties and also retains compression longer than Unna Boot," he said.

BASELINE DOPPLER STUDIES

Dr. Wunderlich's team also did baseline Doppler studies in all these patients, which he said is often overlooked in this population. "You see situations where a patient is put in an Unna Boot without having Doppler studies done. Later you find that they have arterial insufficiency, and basically the healing process has been slowed."

He concluded that the clinical profile and outcomes in diabetic patients with venous stasis ulcers is similar to that of nondiabetic populations. Hospitalizations and amputations are rare, and recurrence is indeed preventable with the diligent use of compression stockings. ■

Robert P. Wunderlich, DPM, is a consultant with XLHealth Corporation. He can be reached at rwunder@gmail.com.

Wunderlich RP. Venous stasis ulcerations in patients with diabetes: Clinical characteristics and outcomes. Presented at the American Diabetes Association 65th Annual Meeting and Scientific Sessions. June 10-14, 2005. San Diego.