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letter to the Editor

Systolic pressure in wound scarring

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SUMMARY: **Systolic pressure in wound scarring.**

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The recommended goal of a systolic pressure under 13 mmHg in hypertensive diabetic patients results in a significant drop in blood pressure that often has caused conflicts in respect to maintaining a minimum systolic pressure for wound scaring in patients with peripheral artery disease.

This, as long as the patient remains asymptomatic, is no problem, however if the patient has a peripheral wound, the low systolic pressures may affect scarring.

KEY WORDS: Systolic pressure - Wound - Scarring.

The goal of maintaining the systolic pressure under 13 mmHg in hypertensive individuals, particularly those with diabetes 1, has caused conflicts in respect to maintaining a minimum systolic pressure for wound scaring in patients with peripheral artery disease. The cardiologist establishes a maximum systolic pressure of 13 mmHg but does not always establish the minimum systolic pressure (1). This, as long as the patient remains asymptomatic, is no problem, however if the patient has a peripheral wound, the low systolic pressures may affect scarring.

This can be illustrated by the case of a hypertensive diabetic patient with a palpable dorsalis pedis pulse, an arterial systolic pressure of the brachial artery of 9 mmHg and of the dorsalis pedis of 72 mmHg and an ankle-arm index of 0.8. This patient suffered traumatic necrosis of the small toe which required amputation. The patient was taking nifedipine (20 mg/day) and losartan (50 mg bid). After amputation the wound was pale and without granulation. The nifedipine was ceased and the pressure increased to 11/8 mmHg. After the losartan was reduced to 25 mg the minimum systolic pressure increased to 13 mmHg.

Thus there was an improvement in the perfusion of the wound due to the medications used to control arterial pressure. This patient complained of symptoms such as dizziness that improved on lying down. After increasing the pressure there was an improvement in these symptoms suggesting that the cerebral perfusion also improved with the increase in the arterial pressure.

These complications suggest that, particularly in hypertensive diabetic patients, a minimum systemic arterial pressure should be established when treating hypertension so that excessively low pressures do not interfere in the scaring of peripheral wounds and the perfusion of vital organs such as the brain.

References

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