Sevoflurane: A Valid Alternative for the Treatment of Vascular Ulcers?  

To the Editor:

Vascular ulcers are a major health problem because of their frequency, chronic nature, and high recurrence rate. The standard treatment, which consists of cleansing, debridement, and application of dressings, achieves cure rates of 65% to 85%.[1]

The approaches used to accelerate scarring of these ulcers include dressings (biologic, synthetic, or biosynthetic), human amniotic membrane transplantation, and autologous platelet-rich plasma.[2] Options for analgesia to control the pain associated with vascular ulcers include topical anesthetics such as the creams Emla (lidocaine and prilocaine) and Lammaluna (lidocaine), oral analgesics, and even opiates. These products aid in the healing process and in pain control, although they can produce undesirable effects.

Sevoflurane is an inhaled general anesthetic from the halogenated ether family that is indicated for induction and maintenance of general anesthesia during hospital or outpatient surgery.[3] Its anesthetic effect is both central and peripheral,[3] although it has traditionally been thought that halogenated anesthetics lack a peripheral analgesic effect.[3]

Topical sevoflurane has been reported to be effective in the treatment of long-standing venous ulcers[4] and ischemic ulcers[5] that are refractory to standard treatment; when irri-

References


P. Soro Martínez, I. Belinchón Romero,*
M.P. Arribas Granados
Servicio de Dermatología, Hospital General Universitario de Alicante, Alicante, Spain

*Corresponding author.
E-mail address: belinchon_jsa@gva.es (I. Belinchón Romero).
Inhaled sevoflurane has no peripheral analgesic effect; however, topical or subcutaneous administration does produce a peripheral effect. When a halogenated agent is inhaled, the partial pressure reached in the peripheral nociceptors may not be sufficient to block transmission of a painful stimulus; however, with direct application, the nociceptors are exposed to sufficient partial pressure to block transmission of painful stimuli.

In conclusion, topical sevoflurane could prove to be a promising strategy for analgesia and epithelialization in the treatment of vascular ulcers.

References


R.F. Lafuente-Urrez,a Y. Gilaberteb

a Servicio de Dermatología, Hospital Reina Sofía, Tudela, Spain
b Servicio de Dermatología, Hospital San Jorge, Huesca, Spain

corresponding author.

E-mail addresses: fati1997@gmail.com, rF97@yahoo.com (R.F. Lafuente-Urrez).