

## Managing leg ulcer pain in sickle cell disease

### Controle da dor da úlcera de perna na doença falciforme

Flavio A. Naoum

Leg ulcers are common complications in adults with sickle cell disease (SCD). Ulcers most commonly appear on the lower leg, in particular on the shin or in the malleolus region. Sometimes these ulcers can be deep and large, provoking excruciating pain and considerably disabling. Although both vaso-occlusion and chronic hemolysis are major determinants of leg ulceration, the exact mechanism of their formation is not totally understood and may involve other factors such as exposure of the leg to trauma or insect bites, local infection, edema and impaired circulatory dynamics.<sup>1-3</sup>

Despite of notable improvement in the comprehension of the physiopathology, molecular markers and treatment of many SCD complications, the understanding and care of leg ulcers in this disease are still disappointing. Traditionally, the mainstay of leg ulcer treatment remains a combination of local hygiene to prevent inflammation and infection, elevation of the leg, and prolonged rest, which is usually not feasible.<sup>2,3</sup> Besides these, some attempts based on topical and systemic therapies such as Unna gel dressings, topical antibiotics, zinc supplementation, skin grafts and transfusions, among others, have been tested largely in non-controlled trials that have not produced consistent results.<sup>1,2</sup>

Since leg ulcers are difficult to heal and may last several months or even years, pain management becomes an important issue in this complication.<sup>4</sup> Some patients may achieve pain control only with high doses of oral or parenteral opioids taken on a daily basis, thereby raising concerns about side effects, low quality of life and possible addiction. Hence, analgesia with topical opioids is an attractive idea that may yield substantial pain relief without causing significant health problems, since its mechanism involves the local action of morphine on the opioid receptors of peripheral nerve terminals.<sup>5</sup> Topical opioid analgesia for painful leg ulcers in SCD and other conditions has been shown to be very effective in small series of patients and in case reports.<sup>6-8</sup>

In this issue of the journal, Neves *et al.*<sup>9</sup> describe the results of topical analgesia using a low cost morphine gel in 28 SCD patients with leg ulcers. Twenty-four patients reported total pain relief within 30 minutes after the application of the morphine gel, which lasted for about 24 hours, during which time no systemic analgesia was necessary. This descriptive study shows the potential use of a simple and practical method to alleviate pain and improve the quality of life of

SCD patients with leg ulcers. Nevertheless, to avoid the problem of suggestion, a randomized trial using a placebo is important to ascertain the extent of pain relief with topical opioids in these patients.

While better options for the effective treatment of leg ulcers in SCD are still pending, pain relief should be addressed more carefully and seriously. The report by Neves *et al.*<sup>9</sup> is certainly welcome with regards to this and thus strengthens efforts to confirm the benefit of a topical analgesia and its possible implementation on a larger scale.

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Hematologista – Coordenador do Instituto Naoum de Hematologia e Diretor Clínico da Academia de Ciência e Tecnologia de São José do Rio Preto-SP.

**Correspondência:** Flávio A. Naoum  
Academia de Ciência e Tecnologia  
Rua Bonfá Natale, 1860 – Santos Dumont  
15020-130 – São José do Rio Preto-SP – Brasil  
Tel.: (55 17) 3233-4490  
E-mail: a.c.t@terra.com.br