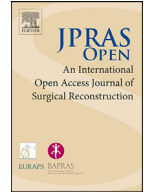


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Short Communication

Using the suture/adhesive strips combination technique for skin closure in an individual with Ehlers–Danlos Syndrome

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ABSTRACT

Combining sutures with adhesive strips to avoid the ‘cheese-wiring’ effect in individuals with fragile skin is a method that has been described previously. Here we demonstrate its application in an individual with Ehlers–Danlos Syndrome.

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Dear Sir,

A novel method of combining sutures with adhesive wound closure strips (such as Steri-Strips™) for skin closure in patients with fragile skin to avoid ‘cheese-wiring’ was described by Davis et al. in the Journal of Emergency Medicine¹ (2011), and then discussed further by Kitcat et al. in the Journal of Plastic, Reconstructive and Aesthetic Surgery² (2017). In these reports, the application of this method is aimed at the elderly population with regards to thin skin. Here we highlight another population of patients whose fragile skin poses a similar problem that this technique can be employed for.

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Figure 1. Laceration closed with a combination of longitudinal Steri-Strips™ and 3M Micropore™ at the wound edges, prior to 4-0 Prolene® horizontal mattress sutures.



Figure 2. The wound with sutures removed two weeks postoperatively.

The Ehlers–Danlos Syndromes are a group of heritable collagen disorders. While there is heterogeneity between the subtypes, one of the key characteristics is skin hyperextensibility and tissue fragility.³ This can provide a serious challenge with regards to skin closure, and operating surgeons are likely to encounter the ‘cheese-wiring’ effect.

We present a child, aged 5, with a diagnosis of Ehlers–Danlos Syndrome who had suffered a pre-tibial laceration to their right leg. Rather than applying the adhesive wound closure strips perpendicular to the wound as described by Kitcat et al.², the strips were applied *longitudinally* (Figure 1). This modification of the original method was described by Cole and Whittaker in 2017 and is thought to result in an even further reduced shear force on the epidermis.⁴ In addition to this, a layer of 3M Micropore™ tape was applied to further strengthen the site prior to 4-0 Prolene® horizontal mattress sutures used for skin closure. The sutures were then removed two weeks postoperatively (Figure 2).

We believe that this case shows that the suture/adhesive wound closure strips combination can be used not only for the thin skin of elderly patients but has wider applications.

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Conflict of interest

None.

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