



## Letter to the Editor

### Laurell–Gottlow suture modified by Sentineri for tight closure of a wound with a single line of sutures

Primary wound healing requires precise approximation of the edges of the wound and their firm stabilisation during the early phases of healing.<sup>1</sup> A line of horizontal mattress sutures followed by interrupted sutures is considered reliable for the closure of flaps.<sup>2</sup> Horizontal mattress sutures maximise eversion of the wound, which encourages close contact between the inner portions of the flap and keeps epithelium away from underlying structures, reduces dead space and minimises tension across the wound. However, the use of additional interrupted sutures is necessary to approximate the edges of the wound and obtain primary healing.

The Laurell and Gottlow suture<sup>3</sup> is a modified horizontal mattress suture used to avoid interrupted sutures, even if its eversion potential and tightness of closure are less than those of conventional mattress sutures. Our proposal is to modify the technique in a single line of sutures to close the edges of the incision completely with eversion comparable to that of horizontal mattress sutures.

The Sentineri technique has five steps in common with the Laurell and Gottlow suture. First, the needle is inserted from the outside of the buccal flap 3–4 mm from its margin. The internal side of the lingual flap is then pierced 3–4 mm from the margin of the lingual flap.

The outside of the lingual flap is then pierced 5 mm lateral to the second piercing, and the needle passed through the inside of the buccal flap (point A). The needle is then brought down lingually over the coronal aspect of the flap and passed through the loop.

In the Laurell and Gottlow technique the suture is now tied to the free end. However, the Sentineri technique proceeds (Fig. 1) by leaving the suture with the needle over the loop. The thread that exits from point A is pulled and tied to the free end with a surgical knot (Fig. 2). The needle is then pulled to tighten the suture, and tied to the free end with a surgical knot (Figs. 3 and 4).

Compared with the Laurell–Gottlow suture, the Sentineri suture gives an additional buccal knot that ensures close contact between the inner paramarginal portions of the flaps,

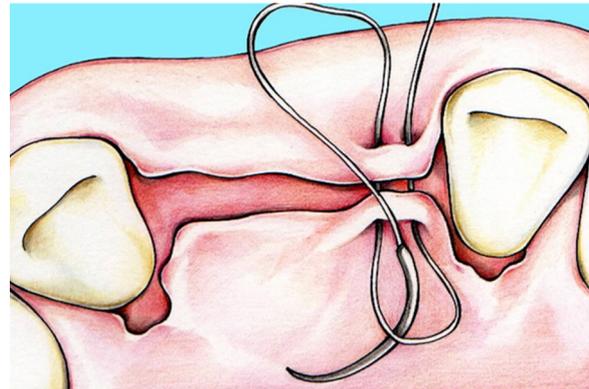


Fig. 1. A conventional Laurell–Gottlow suture, but with the knot untied.

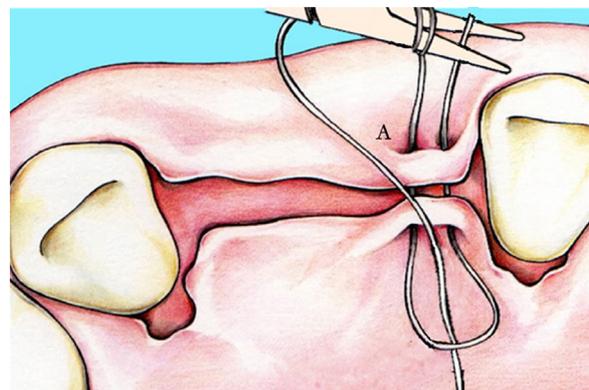


Fig. 2. The thread with the needle over the loop is left on the lingual side, and the suture that exits from point A is pulled and tied to the free end with a surgical knot.

with the same effect of everting the wound and reducing the dead space as a horizontal mattress suture. It also eliminates additional perforations of the flap by the interrupted stitches that are used to approximate the edges of the wound after a horizontal mattress suture. This suture could be a faster and less traumatic alternative to horizontal mattress sutures and single sutures, with comparable effects in terms of closure of the wound and stabilisation of the soft tissues.

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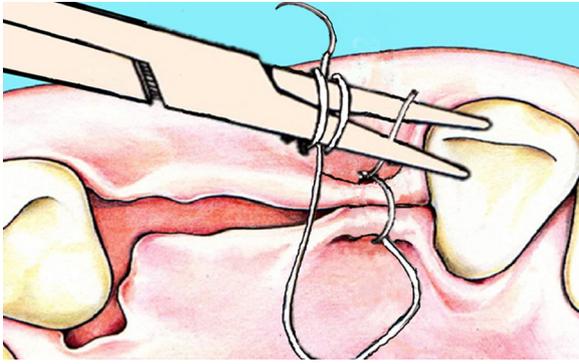


Fig. 3. The thread with the needle is pulled to tighten the suture, and tied to the free end with a surgical knot.

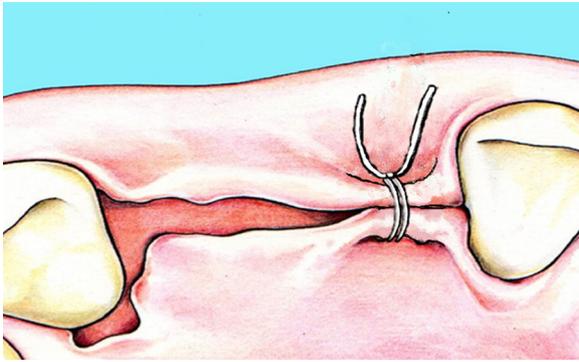


Fig. 4. Final appearance of the suture.

#### Conflict of interest

We have no conflict of interest.

#### Ethics statement/confirmation of patients' permission

Not applicable.

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