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The bicycle wheel analogy for linear closures of small suborbital cheek defects

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Abstract

Primary closure of suborbital skin defects can cause tension along the closure resulting in ectropion. The bicycle wheel analogy is a simple yet effective guide to aid in reducing tension vectors resulting in ectropion.

Keywords: dermatologic surgery, suture technique, suborbital, ectropion, suture, cheek, surgical analogy

Introduction

Primary closure is the preferred reconstructive technique in all areas of the cheek and is indicated for patients with defects less than 2cm in diameter [1, 2]. However, caution should be taken during primary closure of suborbital defects, as tension along the periphery of the defect caused by incorrect alignment of linear closures may introduce additional force vectors resulting in ectropion. A simple analogy may be helpful in the reconstructive approach for suborbital linear closures.

Case Discussion

The bicycle wheel analogy aids in the reconstructive approach for small, suborbital cheek defects (**Figure 1**). In this analogy, the pupil represents the hub of the bicycle wheel and the direction of the linear closure is represented by the spokes of the wheel. Although

each patient's anatomy varies, in our experience the use of this approach results in an excellent cosmetic outcome and lessens the likelihood of a patient experiencing ectropion since the tension vectors are perpendicular to the lower eyelid margin. This analogy is best used for suborbital cheek defects at, or lateral to, the mid-pupillary line. Depending on the patient's degree of skin laxity, repairing defects medial to this line using the analogy may result in blunting of the nasofascial sulcus if a tacking suture is not placed.

Potential conflicts of interest

The authors declare no conflicts of interests.

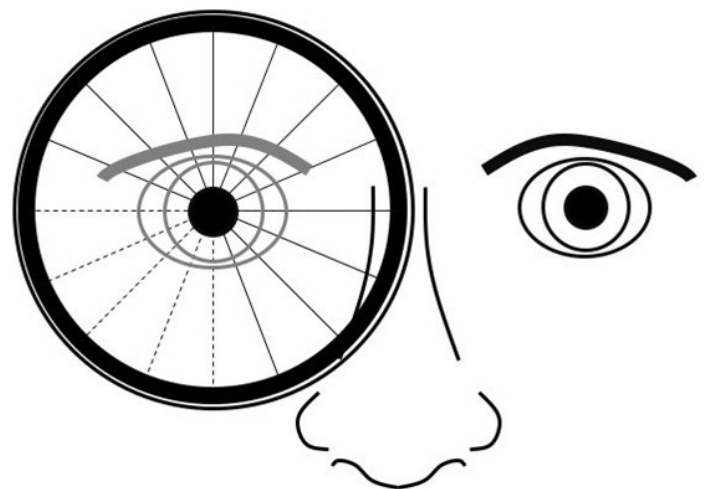


Figure 1. The bicycle analogy is best used on the suborbital cheek, at and lateral to the midpupillary line (represented by dotted lines).

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