

ABSTRACT

Evolution of cleft lip repair has been ongoing for many years. The reason for the various techniques stems from the advances relevant to function and aesthetics of the repair. Unfortunately, the literature does not reveal the long term results of many of these procedures with reference to normal lip anthropometrics. The reason for this is that the normal lip anthropometrics have not been adequately described. This study aims to describe a new technique for unilateral cleft lip repair and to substantiate its evolution by comparing it to the normal upper lips as well as to the most popular current technique of cleft lip repair (Millard technique). This will be done by the following steps:

1. Evaluate the most commonly used current technique of unilateral cleft lip repair (Millard rotation advancement), both objectively and subjectively.
2. Assess the normal anthropometric measurements of the horizontal lip dimensions.
 - a. To assess normal horizontal lip dimensions according to different age categories to serve as reference values for further studies.
 - b. To assess the timing where the lip is fully developed.

- c. To assess Cupid's bow length in relation to horizontal lip length at different ages, thereby assessing dynamic changes with growth.
3. Compare the currently used technique of unilateral cleft lip repair to normal values indicating the anatomical drawbacks to the technique.
4. Describe a new technique for unilateral cleft lip repair which eliminates some of the unwanted drawbacks of the Millard technique.

This new technique has the distinct advantage of maintaining better lip symmetry and not breaching anatomical landmarks of the lip. This technique is referred to as the straight line repair and is easy to teach and the results are reproducible.