

**EVALUATION OF UNILATERAL CLEFT LIP
REPAIRS AND THE EVOLUTION OF A NEW
TECHNIQUE BASED ON EXPERIENCE AND
RESEARCH**

Efthimios Andreas Christofides

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DECLARATION

I, Efthimios Andreas Christofides declare that this research report is my own work. It is being submitted for the degree of Master of Science in Medicine in the branch of Plastic and Reconstructive Surgery at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree at this or any other university.

Signed: _____ Date: _____

Name: Efthimios Andreas Christofides

To my loving wife Aikaterini, for her understanding
and support without which I would not have been able
to complete this work. Thanks for your patience and
all the laughs.

PUBLICATIONS AND PRESENTATIONS ARISING FROM THE
STUDY

Presentations:

1. A LONG TERM SUBJECTIVE AND OBJECTIVE ASSESSMENT OF UNILATERAL CLEFT LIP REPAIRS USING THE MILLARD TECHNIQUE WITHOUT REVISIONAL SURGERY

Annual Congress of the Association of Plastic and Reconstructive Surgeons of South Africa (APRSSA) - 2002

2. HORIZONTAL UPPER LIP DIMENSIONS AND DYNAMIC CHANGES OVER TIME IN AFRICAN BLACK PEOPLE

Annual Congress of the Association of Plastic and Reconstructive Surgeons of South Africa (APRSSA) - 2003

Publications:

1. A LONG TERM SUBJECTIVE AND OBJECTIVE ASSESSMENT OF UNILATERAL CLEFT LIP REPAIRS USING THE MILLARD TECHNIQUE WITHOUT REVISIONAL SURGERY

British Journal of Plastic Surgery 2006; 59(4):380-6

2. ULTIMATE STRAIGHT LINE REPAIR FOR UNILATERAL CLEFT LIPS

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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.

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PREFACE

As Plastic Surgeons, we are constantly striving for better results for our patients. The fundamentals of plastic surgery are to restore function first and then concentrate on the aesthetic appearance. There are no other fields of plastic surgery that marry these two fundamentals better than cleft lip surgery.

Many surgical principles exist for cleft lip repair such as complete preservation of the Cupid's Bow. However, the cleft lip is repaired prior to growth of the child and this growth together with the surgery many result in an outcome which is different to that which is expected. This has been my experience with the abnormally large size of the Cupid's Bow in cleft lip children who have had Millard repairs.

I would also like to point out that a true analysis of a technique can only be performed on children who have had a cleft lip repair and have not had revisional surgery. Obviously multiple revisions would alter the original operation.

This study analyses some of these points.