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# MANAGEMENT OF CLEFT LIP AND PALATE IN ALBANIA

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## Abstract

Cleft lip and palate are treated in our Service of Oral and Maxillofacial Surgery since 1970.Most important is that decade after decade our protocol was greatly improved. After 2005 we have make to many innovations in cleft lip and palate diagnosis , treatment plan and post operative management. If the contemporary protocol is applied to address the complexity of these defects, the results are guaranteed.

*Keywords:* Cleft Lip and Palate; Contemporary Protocol ;Defects

## Introduction

A cleft lip or palate is an abnormal separation in the oral-facial region that happens because tissue of the mouth or lip does not form correctly in fetal development. These pathologies are the second most common after the foot deformities and are quite diverse, they meet 1 in 750 birth in Albania. Problems related with these pathologies are: cosmetics, dental, in speech, swallowing, in hearing, in facial growth and psycho-emotional. The leading role in the treatment of these defects has OMF Surgeon and Dentists.[1,2,3]

## Matherial and method

For this article are used our experience in the treatment of more than 400 cases of cleft lip and palate at the Oral and Maxillofacial Surgery Service in Albania for a period more than 30 years.

## Discussions

For the treatment of cleft lips and palate in needed a multidisciplinary team which include: obstreticians,Pediatrician,OMFSurgeon,Dentist,Orthodontist,Orthopedist,ENT,PlasticSurgeon,Psychiatrist,SpeechTherapist,Audiometrist,Geneticist,Socialworker.The primary palate develops 4-7 weeks and the secondary palate develops 7-10 weeks. Non syndromic congenital defects are multifactorial. Syndromic defects of lip and palate associated with more than 300 malformations. Environmental factors of cleft lip and palate include: Material Diabetes, Amniotic band syndrome, macroglosy.[1]

Most useful classification of cleft lip and palate in Albania is Veau Classification:

- Veau Class I-Palatoschisis incomplete
- Veau Class II-Palatoschisis complete
- Veau Class III-Cheilognathopalatoschisisunilateralis
- Veau Class IV-Cheilognathopalatoschisisbilateralis

The symptomatology of cleft lip and palate include: Separation of the lip; Separation of palate; Nasal distortion; recurring ear infection; failure to gain weight; nasal regurgitation when bottle fifing; poor speech; misaligned teeth; growth retardation. Cleft lip and palate can accompanied by ear infection; hearing loss, dental cavities, displaced teeth, poor speech, lip deformities and nasal deformities.[3]

The diagnose of cleft lip and palate can be made by: genetic analysis of amniotic fluid; gynecological ultrasound; 3D imaging; clinicalexaminationand geneticist consultation.

Treatment of cleft lip and palate go through these steps:

1. Evaluation of a child born with the defect and the application of orthodontic treatment(in lip plates and fixing strips on the edge which goes up to 3 months)
2. The lip is corrected 3-6 months (10 rules)
    a. For Unilateral Cheiloplasty we use: Tenison-Randal and Millard Techniques
    b. For Bilateral Cheiloplasty we use: Black, Veau and Millard technique
3. Palate corrected 12-18 months
    a. Anatomic repair of muscle
    b. One or two operations
    c. Soft palate sutured in three layers and hard palate in two layers
    d. Most used techniques are Langenbeck, Bardach, Wardill-Killner and Furlow
4. 5-8 years start intermittent orthodontics and speech therapy
5. 7-8 years maxilla extension with orthodontics
    a. Orthodontic prosthesis models anatomical structures of the defect in the normal position
    b. Affects in facial growth
6. 9-11 years bone transplantation in alveolar process
    a. Stabilize the dental osseous segment
    b. Closure of oro-nasal fistulas
    c. Improving the form of alveolar process
    d. Prevent the fall of the teeth
    e. Preparing support for ala nares
    f. Prevents lareal cross bite
    g. Provides normal teeth eruption
    h. Serves as basis for implants
7. 12-13 years orthodontics with plates
8. 17-18 years orthognathic surgery
9. Dental treatment through this years

Some sequels post cheiloplasty are : expressed celoids, cupidon line deviation, deviation of nasal apex, asymmetry of nares, deviation of nasal septum, lip short and narrow, deformities of alveolar process, velofaringeal incontinence, maxillary anomalies, teeth problems.[1,2,3]

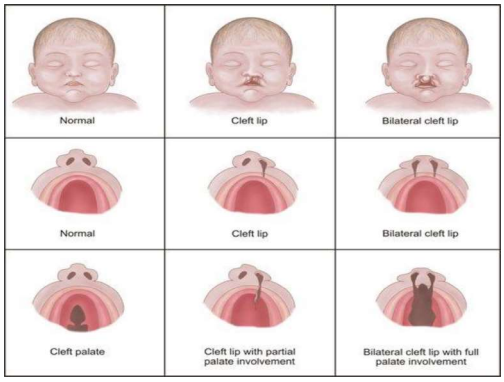

Fig 1-Veau Classification

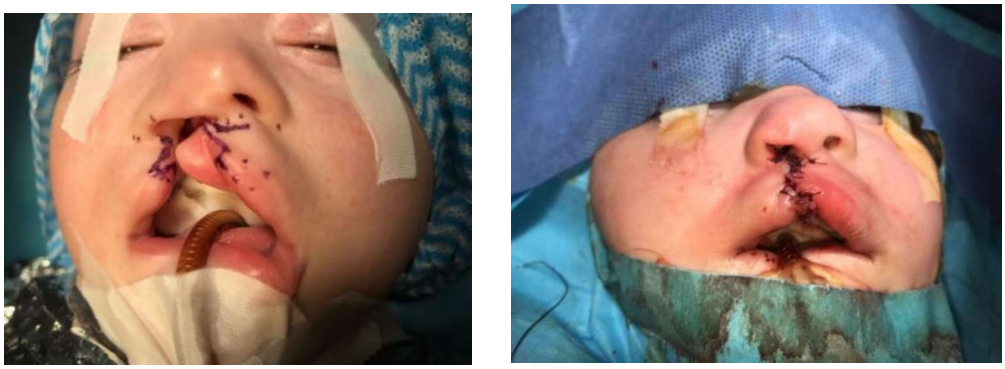

Fig 2- CheiloplastyUnilateralis

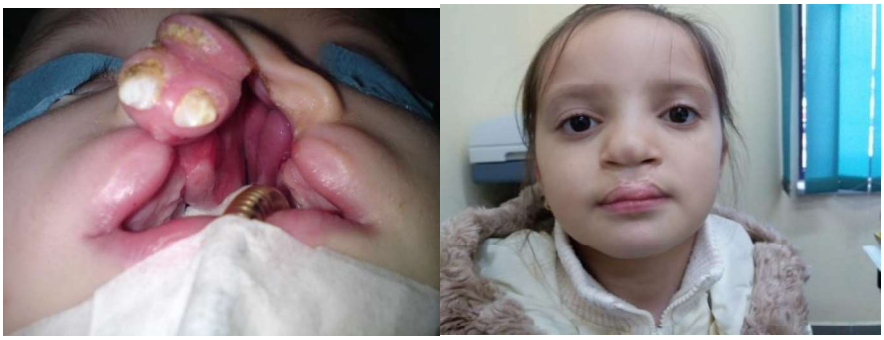

Fig 3-Cheiloplasty Bilateralis

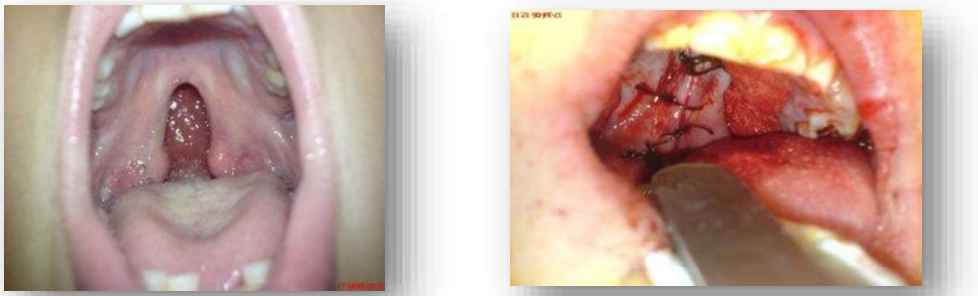

Fig 4- Palatoplasty by Langenbeck

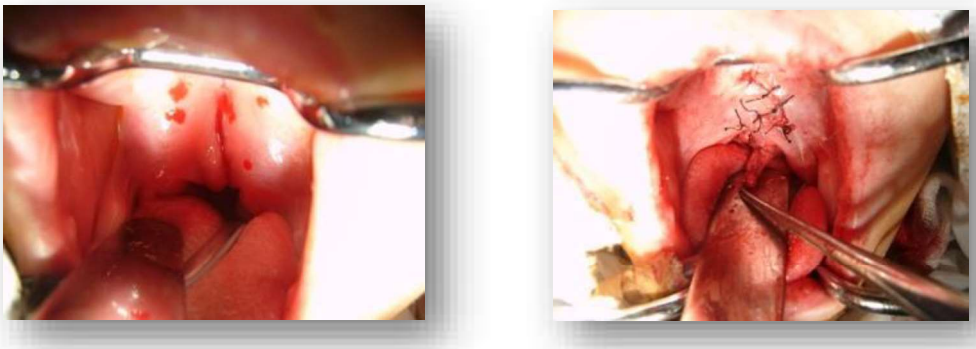

Fig 5 – Palatoplasty by Furlow

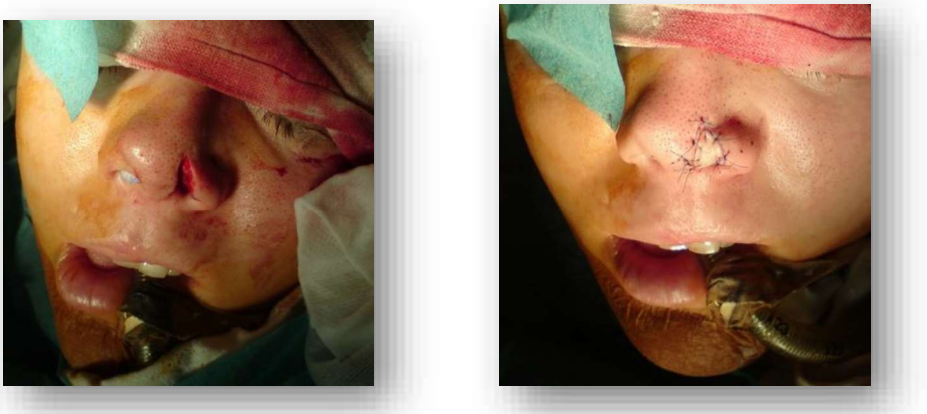

Fig 6 – Treatment of sequeles

## Conclusions

- Congenital defects of the lip and palate require multidisciplinary treatment and well trained team
- Leading role in the treatment of these defects has OMF surgeon ,who often is before challenges of the surgical treatment selection
- Very important for the success of treatment of these defects are pre and post surgical orthodontic treatments.

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# ACTUAL KNOWLEDGE AND FUTURE PERSPECTIVES ON OBSTRUCTIVE AZOOSPERMIA (META-ANALYSIS AND TEXTBOOK REVIEW)

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## Abstract

In this paper are reviewed and analyzed parts of works of the most prominent scientists and clinicians in the field of male infertility recombined with studies conducted in the Republic of Macedonia. The material was collected from the databases of standard digital libraries.

Referring to the data that 10 million males out of 3 billion in a reproductive age are azoospermic, and a number that should not be neglected lives within the Balkan Peninsula, where documented ciphers are lacking on the prevalence of azoospermia.

Epigenetic changes are now known to affect gene expression and some genes participating in spermatogenesis have been demonstrated to be epigenetically regulated.

Laboratory management of gametes taken surgically requires special attention because sperm retrieval from azoospermatic males is often of compromised quality.

In the focus of study were the compared results of successful pregnancy rate, after intracytoplasmic sperm injection (ICSI) and the health of offspring originating from such fathers, with meta-analysis of predictive factors such as etiology, sperm injection technique, and clinical results from assisted reproductive technique (ART).

The development of artificial gametes presents challenge and biotechnological perspective. Stem cell research is the field of hope for treating the most severe cases of azoospermia and potential healing of male sterility.

*Keywords:* male infertility, obstructive azoospermia, perspectives, knowledge, ICSI, ART

## Introduction

This review is fully dedicated to the topic of obstructive azoospermia and contains seminal work of the most illustrious scientist and clinicians from USA, Brazil, Europe and Asia. There are also reviewed some scientific papers done by Macedonian Academy of Sciences and Arts, section of Biological and Medical Sciences. Two major breakthroughs in the last three decades revolutionized the field of male infertility. The first was the development of intracytoplasmic sperm injection (ICSI) for the treatment of male factor infertility, and the second was application of ICSI in azoospermic males, with the demonstration that spermatozoa derived from either the epididymis or the testis, were capable of normal fertilization and pregnancy [1, 2].

Azoospermia, defined as a complete absence of spermatozoa in ejaculation, invariably results in infertility but does not necessarily implicate sterility [3]. Obstructive azoospermia (OA) has been attributed to a mechanical blockage that can occur anywhere along the reproductive tract, including the vas deferens, epididymis, and ejaculatory duct. OA is considered to be one of the most favourable prognostic conditions for male infertility because spermatogenesis is not disrupted, unlike in non-obstructive azoospermia (NOA) [3]. Furthermore, the correlation of increased risk for congenital anomalies and potential iatrogenic transmission of genetic disorders with ICSI using sperm retrieved from these patients is still under debate [4].