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SEQUENTIAL AND MULTIDISCIPLINARY MANAGEMENT OF CLEFT LIP AND PALATE

- SUMMARY -

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KEY WORDS: congenital malformations, lip cleft, palate cleft, surgical techniques, alveolar bone grafting.

INTRODUCTION

Anticipating the birth of a new baby is usually a very exciting time of life. The parents do many things to prepare for the baby and they expect to have a normal baby, with ten fingers, ten toes, and an intact face. Unfortunately, not all children are born perfect. The birth of a child with a cleft lip and /or palate is a real shock to the family, especially due to the damage to the face. It is a devastating surprise to what is expected to be a very happy moment.

What is a cleft? A cleft is an abnormal opening or a fissure in the anatomical structure. It is a congenital malformation that occurs during the first trimester of pregnancy, due to the lack of fusion of parts of the upper lip, in the case of cleft lips or parts of the palate in the case of palatine clefts. Because a cleft occurs due to a disruption in embryological development, it typically follows the normal fusion lines.

Cleft lip or palate is the most common cranio-facial anomaly and is the fourth most common congenital malformation, with an incidence of 1 in 750 children born in the US each year. Approximately half of these children have associated other malformations. Cleft palate is a characteristic of over 200 recognized syndromes.

Cleft lip has more serious cosmetic alterations than cleft palate, but it presents serious functional problems, especially speech. People will have aesthetic, speech, resonance, eating, and hearing difficulties.

Although located in a small anatomical area, it requires specialized care provided by professional teams. It is a three-dimensional anomaly that concerns soft and bony tissue, which changes its size with the growth and functionality of the region. Protocols for the sequential management of the patient with cleft lip and palate are described.

In order to understand why clefts lip and palate occur and how we can prevent and treat them as satisfying as possible, it is necessary to know the embryology and anatomy of the affected structures.

The presence of a facial malformation causes marginalization of the person. The negative impact on the psyche and the impact on social integration is the major motivation for treatment.

The remarkable progress of surgical treatment in recent years is that an early correction of the anomaly is an absolute goal.

PERSONAL CONTRIBUTION

The objectives of the thesis

Cleft lip and palate is a growing pathology in terms of the need for treatment, smile harmony, being an important part of the personality of each individual.

This very complex pathology is difficult to treat and treatment extends over a long period of time that can be from birth to adolescence, sometimes even to adulthood. Over the years, it has been proven that only one specialty is not sufficient for complex treatment.

In 1993, the American Cleft Lip and Palate Association proposed some care parameters designed to help standardize the treatment of patients with cleft lip and palate. The objectives were to support the concept of interdisciplinarity and to encourage the use of treatment protocols that carefully highlight the timing of the treatments and coincide with the child's physical, cognitive, dental, psychosocial development.

The centers dealing with the study of the cleft lip and palate in the world have interpreted these objectives differently. Therefore, there are a variety of treatment protocols for the management of these infants, children, adolescents, adults.

Between 1996-2000, the Eurocleft project, a European intercentre comparison study of several centers, was carried out. It has developed a methodology for comparing treatments and has been recognized by the European Commission as a possibility of extensive collaboration between health centers. The results of the project were the following: the establishment of a register of services in Europe, with details of the teams involved in cleft care, the organization of services, the development of clinical protocols and special facilities for research and the development of practice guides.

The paper aims to develop a comprehensive protocol to correct these facial malformations. I aim to present and detail the current treatment principles and stages of the cleft lip and palate, focusing on the planning of the surgical moment, the sequencing of the treatment in order to ensure a lasting benefit in the long term and to minimize the complications and costs of the treatments .

Cleft lip and palate is a three-dimensional malformation that changes with the growth and function of the facial region. Since surgical repair techniques are broadly explained in literature, we will try to focus on the principles of management.

STATISTICAL ANALYSIS OF CLEFT LIP AND PALAT

1.THE RETROSPECTIVE STUDY OF CLEFT LIP AND PALATE

Material and methods

The study group includes 79 cleft lip and/or palate patients diagnosed and treated in the Constanta County Emergency Clinical Hospital, in the Departments of Pediatric and Orthopedics Surgery and Oro Maxillofacial Surgery in 2008-2017.

Patient observations sheets were used to retrieve and record personal data, year of birth, type of cleft, other secondary diagnoses, history of treatment and duration, treatment steps and type of interventions. All data was retrieved and recorded in the tables for the statistical survey.

Discussions

The results of the retrospective study show the male predominance of the clefts according to the data in the specialty.

According to the country of origin, the vast majority of patients are from rural areas. This is due to poor mother's medical education, poor nutrition, alcohol consumption and smoking.

A lower percentage of patients was hospitalized and postponed due to complications caused by conditions such as anemia, respiratory infections.

After diagnosis, the most common are cleft lip and palate, as in the literature, on the left and complete. Among the cleft lip, unilateral ones are the most common.

The age of primary repair of the cleft lip was at 6 months, and the cleft palate at 2 years of age.

The most commonly used surgical technique in unilateral cleft lip was the Veau Technique, the most widely used technique due to simplicity.

As the surgical technique bilateral cleft lip, the Veau method was used for the same reasons.

There have been several cases of postoperative complications, most of them being acute upper respiratory infections.

After days of hospitalization, the most used interval was at least 10 days, an optimal time for intervention and control of healing.

2. THE PROSPECTIVE STUDY OF CLEFT LIP

Material and methods

Our study is conducted over a period of 5 years, 2013-2017 and comprises a group of 18 patients, children admitted to the County Emergency County Hospital Constanta in the Departments of Pediatric Surgery and Orthopedics and Oro Maxillofacial Surgery. The study was conducted prospectively during this period in which 20 patients with cleft lip were operated, of whom 18 patients remained in study, 2 patients did not show up for postoperative controls and were excluded from the study.

For that period, it was envisaged the establishment of multidisciplinary diagnostic and treatment protocol, pre and postoperative clinical evaluation of patients, surgical treatment of congenital malformations, and regular monitoring.

The prospective study was based on photos taken before and after surgical treatment, as well as on periodic controls, study models were taken by maxillary printing, two types of questionnaires were completed, and the medical data were obtained by studying the patient observations sheets.

Two questionnaires were used for the study: a general questionnaire containing general personal data and a standardized POSAS (The Patient and Observer Scar Assessment Scale) questionnaire assessing the appearance of post-operative scarring from the patient / parent's point of view and an observer, a surgeon from the Department Oro-Maxillofacial Surgery. Patients were asked if they wanted to participate in completing the questionnaires, and after their consent, they received the questionnaires they had completed. Parents were asked to pay attention to scar assessment and notation of responses, and to ignore other features that occurred after treatment of cleft lip, such as nasal deformity.

Measurements of various upper lip elements were performed according to anatomical markers at one month, 6 months and 1 year after surgery to assess the aesthetic and functional aspect and to study the results obtained after surgery. The difficulty of the measurements was given by the young age of patients and the weight of collaboration with them.

Within the multidisciplinary protocol that I promoted, we consulted on various specialties: pediatrics, pediatric surgery, ENT and audiometric assessments, OMF surgery and speech therapy.

The purpose of the study is primarily to specify the results obtained from surgical treatment, to observe the results of using the multidisciplinary protocol and to assess how they influence the growth and further development of the child. The results were conditioned by the possibilities of collaboration with the parents of the child or the maternal assistant, with the medical staff for the different types of treatment. By evaluating the results we will determine the causes that have led to unfavorable results in order to understand them and avoid them in the future.

The POSAS (The Patient and Observer Scar Assessment Scale)
Scar scoring scaling from the patient / parent and observer's point of view

The POSAS v2.0 scale is made up of two parts: the patient and observer evaluation scale. Both scales contain 6 questions that are numbered from 1 to 10 and make up a total "POSAS" score. In addition to the 6 questions, there are categories in the observer rating scale that mark normal parameters. In addition, the patient and the observer also mark their "General Opinion".

1. Patient scale

Contains 6 questions about pain, itching, color, flexibility, thickness, relief. Since it was difficult for patients / parents to distinguish between pigmentation and vascularization, both characteristics were captured in one element, the color. Each question has a score of 10 points, where 10 indicates the worst possible scar and 1 corresponds to the normal skin condition. The total score is calculated by summing the scores of the 6 questions.

Patient scale contains the following questions:

1. Has scarring been painful in recent weeks?
2. Have you had scarring itching in the last few weeks?

3. Is scar color different from normal skin?
4. Is the scar of stiffness different from normal skin?
5. Is scar thickness different from normal skin?
6. Is the scar more irregular than normal skin?

In addition to these questions, the patient was asked to give a general opinion on the quality of scarring compared to normal skin. Both the patient and the observer are asked to give their general opinion on the appearance of scarring. A scale is used where 10 corresponds to the worst scar. Overall opinion is not a part of the total score.

2. Observer scale

Scars are normally assessed in a clinical situation. Draaijers and collaborators have shown in the original article that an observer is sufficient to evaluate scars after burns to achieve a total confidence score.

6 parameters are evaluated, each with a score of 10 points, where 10 indicates the worst imaginable scar and 1 corresponds to the normal skin condition. Instructions for use are that each of the parameters will compare to the normal appearance of the skin in a similar anatomical area. The total score is calculated by summing the scores of the 6 parameters.

The parameters used are: vascularization, pigmentation, thickness, relief, foldability, surface.

a. *Vascularization* is the presence of vessels in the scar tissue is assessed by the level of redness (erythema). It is tested by vitropression, after the amount of blood reappeared after scarring pressure with a piece of plexiglass.

b. *Pigmentation* is the brown coloration of scarring produced by the melanic pigment. It is tested by applying the plexiglass to the scars with moderate pressure to eliminate the effect of the vasculature.

c. *Thickness* is the distance between the dermis and the surface of the epidermis.

d. *Relief* represented by the degree to which irregularities are present on the surface of the scar.

e. The scar *surface* compared to normal skin.

The categories of the 6 parameters are:
Vascularization: pale / pink / red / purple / mixed
Pigmentation: hypopigmentation / hyperpigmentation / mixed
Thickness: thick / thin
Relief: More / Less / Mixed
Pliability: supple / rigid / mixed
Surface: expansion / contraction / mixed

These categories mark the parameters not only quantitatively but also qualitatively. In this way not only the severity but also the meaning of the damage is evaluated. Categories are not included in the POSAS total score, but are considered clinically relevant.

Discussions

The Prospective Study of Cleft Lip

The prospective study has shown the increased frequency of male children with cleft lip, which is also confirmed in the literature.

It has been shown that the vast majority of patients come from rural areas. The increased frequency of these facial malformations is due to the lack of medical information of the mother, the low educational level, the economic conditions. Some women do not know the teratogenic potential of some drugs administered during pregnancy, addressability to the doctor is poor, diet can be deficient, alcohol consumption and smoking in the country are common.

It has been shown that the main etiological factor of the occurrence of cleft lip is unknown. Among other causes we mention: toxic factors such as the consumption of medications that could affect the pregnancy and without the consent of the family or obstetrician, respiratory virosis, fever, infectious diseases and genetic factors. The two cases with genetic etiology have family members with congenital malformations (father and uncle).
It is necessary to prioritize the health education of young women by providing information on pregnancy, on healthy eating and their importance for further development of the child.

Patients were admitted after a prior appointment, some of them not following the timing of the controls. The spring and autumn months were preferred for admission. Winter is a less preferred season for scheduling operations by both parents and doctors due to the difficulty of transporting to the city, knowing that most patients are from rural areas, but also the increased frequency of respiratory infections, flu that contraindicates surgery. Summer is the holiday season, especially for our seaside town.

Most patients have been shown to have hospitalized once for the primary scar removal plasty. Other patients are those whose surgical intervention was postponed and had to be externalized and subsequently hospitalized for surgery, as well as patients undergoing secondary scar revision.

It was noted that most hospitalized patients were between 6 and 12 months of age. There is a slight delay in the time of intervention against data from the literature recommending intervention around the age of 6 months.

Most patients have been shown to have left unilateral cleft lip, data being consistent with those in the literature. Most are complete, affecting the lip, the narine and the primary palate.

Discussions on the POSAS questionnaire

The appearance of a postoperative scar is very important, especially if the scar is on the face. A scar can cause aesthetic, but also functional and psychological problems. This POSAS protocol is the only one used to assess the postoperative facial appearance.

This study evaluated the postoperative scars of patients operated by cleft lip.

The study found that patients/ parents opinion was better than that of the observer.

Two features, pain and itching were of minimal importance to patients compared to other characteristics.

By comparing the patient's overall score with the observer's total score, patients and parents are more satisfied with the appearance of postoperative scarring. Patient opinion is the most important in the evaluation of a scar. The fact that patients have a good view of the appearance of scarring is probably due to the fact that they still have the pre-operative look and adaptation to the actual physical appearance.

The study found, according to the observer's response, that scarring is becoming more palatable from the point of view of scarring. Increased vascularisation of postoperative scarring is a good indicator of scar activity during maturation. Over time, the scar becomes pale.

The scar appears to be less pigmented than the surrounding skin. From the point of view of the thickness of scarring, this seems thinner. Normally, the scar tissue is thicker than the surrounding skin in the first months after surgery, but it is reduced over time in the vast majority of cases.

The scar is less pointed than the surrounding skin. Postoperative scar atrophy is a common feature. As a foldability, the postoperative scar is supple and undergoes the process of expansion in the surface.

3. THE PROSPECTIVE STUDY OF THE CLEFT PALATE

Material and methods

Our study includes 16 patients diagnosed and treated in the Emergency County Clinical Hospital Constanta - Department of Pediatric Surgery and Orthopedics and OMF Surgery in 2013-2017. These patients diagnosed with cleft palate will be tracked as evolution throughout the study.

The prospective study was based on photos taken before and after surgical treatment, as well as on periodic controls, study patterns were taken by maxilarry printing of the jaws.
Patient observations sheets were used to retrieve and record personal data, year of birth, year of first physician presentation, type of cleft, other secondary diagnoses, reason for presentation to the physician, history of treatments and duration, treatment steps and type of interventions. Questionnaires were completed with general patient data, educational level of the child, parents, and treatments. All data was retrieved and recorded on patient type data sheets.

It was envisaged the establishment of multidisciplinary diagnostic and treatment protocol, pre and postoperative clinical evaluation of patients, surgical treatment of congenital malformations, regular monitoring performed at 1 month, 3 months, 6 months, and annually after surgery.

A questionnaire on quality of life was used that was structured according to Klassen's proposal and colleagues (2012), adapted by us and was given for completion to parents before and after the surgical treatment of palatal clefts. Cronbach's alpha level was used to test

consistency and reliability (values greater than 0.5 were considered acceptable). The value of p was estimated to identify whether there are significant differences between the results. This study focused on assessing the condition of the patient before and after treatment: physical, psychological and social health.

Discussions

Prospective study of cleft palate

The study revealed the predominance of female children with cleft palate, consistent with those in the literature.

According to the environment of origin, there was the same increased frequency of cleft palate in rural areas as in the case of cleft lip. As discussed in that chapter, it was due to the lack of medical information of the future mother, the low educational level, the economic conditions.

It has been noticed that the main etiological factor in the cleft palate is the unknown one. Other factors include toxic factors, drug intake during pregnancy, infectious diseases, influenza. From the study we noticed that there is a case with hereditary tendency (at least one parent has a first-degree relative with congenital malformation). The data obtained were taken from the parents' questionnaires.

The timing of the intervention is equally divided between the period under 2 years and the period of 2-6 years. There is a delay in the moment of intervention against the data from the literature due to non-observance of the therapeutic protocol. Late palatoplasty may cause speech disorders. There are two important aspects of the palate plasty in the optimal evolution of speech: the surgical technique used and the moment of intervention. It is preferable to close cleft palate at 1 year of age. In the case of large clefts, two-stroke intervention, one at 9 months, and the other at 1.5 years-2 years.

It has been observed that cleft lip and palate are more common than cleft palate. The complete form of cleft palate is more common.

After location, it is found that the clefts are located equally at the level of the hard palate and the hard and soft palate. The soft cleft palate are rare.

There have been a few cases of palatine fistulae most commonly located at the level of the hard palate and the incisive hole. Fistulae from the incisive hole are at the border between the primary and secondary palate and are best closed with secondary alveolar bone grafting. Fistulae at the hard palate are frequently encountered, especially in the case of large clefts, or when intra-operative contrainctions are not achieved during the creation of the muco-periostal flaps.

Regarding the period of hospitalization, it was found to be effective by reducing the hospitalization to a maximum of 10 days, sufficient period for the reduction of inflammatory phenomena, pain.

In the comparative analysis, persistence of postoperative speech disorders is observed in patients with complete cleft palate.

Discussions on the quality of life questionnaire

This study focused on assessing the condition of the patient before and after the surgical treatment of cleft palate from a physical, psychological and social point of view.

In terms of physical health, questions about eating difficulties had low scores before and after surgery. This shows a significant reduction in food difficulties. All cleft palate patients are confronted with eating difficulties with food quantity and quality, as well as meal times.

When asked whether there was any food reflux on the nose during food, the answers before surgery were unfavorable. After the intervention, there is a significant reduction of the nasal reflux of the food by the separation of the two cavities, nasal and oral. The scores calculated after the intervention were higher compared to pre-intervention.

The score obtained on the question whether the baby still has nasopharyngeal speech before surgery was unfavorable. After surgery, there was an improvement in speech that will be completed along with logopedic treatment. The score obtained after the intervention was higher than the one before.

Pain and general condition were not such important parameters for the patient.

The persistence of speech difficulty, the misunderstanding of words by the interlocutor are common features of the cleft palate patient. However, an improvement in speech disorders is observed after surgery.

As far as the behavior towards the people around us is concerned, most of them have a discomfort in the inter-human relations, sometimes with isolation tendencies.

As for their confidence in them, the children's response was enlightening. The vast majority have given the average response option, which proves once again that these children need psychological, family warm-up treatments to increase confidence and respect.

Children suffer from varying degrees of anxiety in terms of their relationship with people around them, but their vast majority do not benefit from psychological treatments.

As far as social health is concerned, the proper functioning of the family is a very important feature for any child, the more so of a sensitive child. The study showed that the vast majority of children responded that they had changed family relationships, some even unsatisfactory. There are also abandoned children who are raised by foster carers.

Collective relationships also suffer because these children are usually marginalized by the rest of the children. It has been found that the ideal answer in the test is that these children engage in collegiality with the surrounding people.

It has been noticed that patients would be satisfied with their social relationship, although some of them still have problems of social integration.

Our study has shown that these children do not receive proper care for their needs.

DENTAL TREATMENT

Material and methods

Patients with cleft lip and / or palate need dental treatments all their lives due to the damage of the maxillary bone at the level of teeth and dental germs.

The first consultation with the dentist was done for young children 6-12 months after the eruption of the first temporary tooth. The oral cavity was examined and oral hygiene checked. Children were subsequently scheduled for counseling and dental treatments.

Prophylactic and therapeutic dental treatments have been performed. Dental treatment sheets were prepared in which each treatment step was completed. Impressions of silicone materials were taken to perform study patterns.

Patients diagnosed with caries have been treated with simple or complicated dental caries. Patients will be monitored for dental eruption abnormalities, especially at the teeth adjacent to the teeth in permanent dentition.

There have been cases that required prosthetic treatments that consisted in making palatine prostheses of various causes.

The orthodontic treatment of cleft palate patient includes 4 different age and dental development periods: neonates, temporary dentition (2-6 years), mixed teeth (7-12 years) and definitive teeth.

Discussions

Following dental, prosthetic and orthodontic treatments, the following discussions were reached:

Patients and parents were advised about proper dental brushing. As a result of the consultations, many of them did not know the rules of dental hygiene.

Due to dental eruption, especially to the teeth near the cleft, good oral hygiene is necessary to maintain a good permanent dentition from small ages.

Patients with whom I could collaborate benefited from professional hygiene as the first meeting in the dental office.

Professional fluoridation methods have been applied to children over 6 years using fluorides. Parents accepted the use of prophylactic methods and we had a good collaboration with them.

Temporary and definitive teeth sealing sessions were held periodically. The patients collaborated after explaining that the procedure is not painful.

Concerning the treatment of caries lesions, with younger children, they worked harder at the beginning of treatment. Most of the carious lesions were simple caries. Some patients also had complicated carious processes for which mechanical canal treatments were performed. Some of them accepted treatment, including canal obturation. Another part co-operated at the beginning and gave up, unable to achieve canal closing. With a few patients I could not communicate too much and they only benefited from minimal canal treatment without obturation.

Using palatine plaque in order to make it easier for the child to feed and to avoid nourishment on the nose is a temporary treatment method. The palatal plaque needs to be changed as the baby grows, more adaptations of the endooral plaque are required to avoid decay damage. Parents should remove and sanitize it whenever it is needed, which they can not do for fear or ignorance.

Orthodontic treatment is still inaccessible for the vast majority of families. The need for orthodontic treatment is unacceptable or hard to understand by parents, and because of the high costs and long treatment that requires regular checks.

SURGICAL TREATMENT

For surgery, a general clinical examination accompanied by paraclinical examinations and interdisciplinary consultations is carried out.

1. Surgical treatment of cleft lip

Material and methods

The statistical analysis of the patients included in the study was made according to the following criteria: operative technique for cleft lip; the appearance of postoperative scar, Cupid's arch, lip height, lip red, restoration of the vestibule, nasal symmetry, the level of the alar base.

Discussions

The most commonly used surgical technique was sliding-rotation, the most well known being the Millard technique. This has been chosen due to its many advantages, being well superior to any linear technique.

The facial appearance is very important for each of us. Scarring can cause cosmetic, functional and psychological problems. Scar tissue is different from normal skin through different characteristics such as color, thickness, relief, foldability, surface appearance. The formation of a scar depends on several factors: localization, dimensions, suture technique, suture material, wound healing, age, genetic predisposition. It has been shown that the cheloid aspect of scarring is dominant.

Regarding the reconstruction of the anatomical parts, it was found that the aspect of Cupid's bow is slightly deformed, less than 2 mm. This slight deformation is due to superficial scar contraction and the vast majority is resolved once the scar mature. If not, minor lip surgery is performed.

It has been observed that in most cases the height of the lip is shortened by a maximum of 3 mm. This is due to the insufficient rotation of the lateral labial segment at the time of primary repair. The appearance of the red of the lip is favorable in most cases. The vestibule is restored.

The reconstruction of nasal symmetry is a complex and impossible subject to be

achieved only by the primary repair of the lip, especially in the unilateral clefts. A reduction in asymmetry is attempted by the medial displacement of the wings, the disintegration of the muscular fibers of the orbicular muscle inserted abnormally. Sometimes the reconstruction of symmetry can not be accomplished due to the lack of bone support or the deviation of the median structures. If nasal symmetry is not obtained, the deformation of the columella, the alar base is maintained.

When analyzing the relationships between the different categories, an increased frequency of male gender was demonstrated regardless of the age group, regardless of the diagnosis.

Using comparative analysis of operator techniques in relation to anatomy and symmetry recovery, we have found that Millard technique has better results with regard to the appearance of postoperative scarring, Cupid's arch, lip height.

Regarding the restoration of nasal symmetry, none of the two techniques succeed in successfully fulfilling this requirement.

2. Surgical treatment of cleft palate

Material and methods

The statistical analysis of the patients included in the study was made according to the following criteria: surgical technique, scar aspect.

Discussions

The most commonly used technique was the von Langenback technique to which it was added in the case of complete cleft palate and the restoration of the palatine muscular plan, intravelar veloplasty. Closure of cleft palate through a single intervention is preferable due to decreased anesthetic risk, restoration of oral and nasal cavity functionality, and lower medical costs.

The appearance of palatine postoperative scarring was, in the vast majority of cases, a favorable one. Impaired facial development is too early to study.

ENT AND AUDIOLOGICAL EVALUATION

For the statistical study, we considered ENT evaluations for cleft palate children who are more prone to ENT conditions. Patients with cleft lip have disorders in the ENT sphere during respiratory infections, pharyngitis, laryngitis.

Of the ENT disorders, the most common are recurrent and chronic middle otitis. They have been treated with drugs, antibiotics and antiinflammatory agents in general and local conditions.

Patients in the study who experienced problems in the middle ear performed periodic ENT controls and audiological evaluations were indicated.

Audiological evaluation

All patients in the study performed audiological assessments. Small children up to 6 years old performed impedancemetry and the older ones performed audiometry.

LOGOPEDIC INTERVENTION

All patients under study have speech and language deficiencies. All patients operated by cleft palate maintain their nasal voice more or less.

Logopedic therapy was conducted in two well-defined stages: preoperative and postoperative. The first one was to develop the phono-articular organs' functionality, the phonematic hearing, and last but not least, facilitated the success of the surgical intervention through lingual, labyrinthine motricity exercises and especially the palatine veil. The second stage, the correction of the pronouncing disorders, began after the surgery and the end of the convalescence period.

PSYCHO-SOCIAL EVALUATION

Following the psychological evaluations of children in the pre-school and school age study, conclusions were drawn.

Discussions

The vast majority of patients have ENT conditions, the most common being recurrent and chronic middle otitis.

These patients performed audiological assessments and had some changes in the tests.

Small children performed impedancemetry and it was observed that the vast majority had type B tympanograms indicating the presence of serosity in the middle ear. They have been treated by the ENT specialists.

Speech audiogram was the assessment method for older patients. The results showed slight forms of transmission of hearing loss that did not require auditory rehabilitation.

Very few patients followed logopedic or psychological treatments.

In the comparative analysis, persistence of postoperative speech disorders is observed in patients with complete palatal detachment.

The process of correction of pronouncing disturbances lasts more than in the case of cleft palate. Once because in the cleft lip the surgical intervention takes place at a much younger age, thus respecting the principle of early intervention, it is easier to affect the organs of the phono-articulatory apparatus, and due to the fact that the logopath does not get to live and become aware of the phenomena of labeling and marginalization imposed by society.

In the case of cleft palate, however, the situation is quite different. The intervention, whether it be surgical or speech therapy, is long-lasting, and the subject reaches an age where he fully feels the social barriers imposed by his disability.

CONCLUSIONS

1.Cleft lip and palate is the most common facial congenital malformation due to the lack of fusion of the lip and jaw.
The treatment is complex, multidisciplinary and extends for many years, from birth until the child reaches maturity.

2. The multidisciplinary team should consist of doctors, nurses, social workers, speech therapists, psychologists who need to be trained, have experience in this field for the success of child rehabilitation. Interdisciplinary collaboration can improve understanding and treatment of clefts, and better results can be achieved.

3. It is necessary to make clinical protocols, well-structured practice guides so that all patients receive a set of common recommendations. There are European countries where the basics of clinical practice guides and protocols have been implemented and they have had good results.

The purpose of the protocols is to periodically assess, respect the treatment plan to ensure long-term benefit and minimize complications and treatment costs.

4. The birth of a child with facial malformation can lead to a feeling of parental responsibility. Mothers need specialized help from the early days of the baby. Solving food difficulties will strengthen the relationship between mother and child.

There are family associations of parents with children with cleft lip and palate in Europe. The members help parents to overcome the difficult moments of treatment. In the absence of these associations, there should be social assistants in the multidisciplinary team to help parents. A priority for the future is the creation of such groups.

5. When deciding on a treatment, the professional team must consider the decision and wishes of the parents. Staff should carefully inform their parents of the inherent risks and benefits and alternative treatment options.

Parents should be informed after each treatment step about the results, possible adverse reactions and subsequent development. Parents should be optimistic about the treatment and development of children as this may influence the outcome of treatment and reduce them from uncertainty.

The treatment plan and the results obtained depend considerably on the understanding and cooperation of the parents. If there are specialized teams dealing only with these children, they will certainly receive the best care.

Genetic counseling is important to let parents know the risks that another family member is born with the same malformation. This will be confirmed by the study of the family's medical history to determine whether there is any way of inheritance.

6. Choosing the optimal moment of interventions depends primarily on the health of the child so that there are no complications of general anesthesia. It is recommended that the cleft lip to be practiced for up to 6 months, whether or not preceded by orthodontic orthopedic treatment. Cleft palate are preferably as close as possible to a single surgery around the age of one year. The von Langenback technique and the recovery of palatine muscles are preferred. In cases where the cleft palate is wide, two-stroke intervention is used: a soft palate closure around the age of 9 months and a hard palate closure up to 2 years.

The moment and type of alveolar bone graft intervention is the most controversial at present. The gold standard is considered to be secondary bone grafting with autogenous bone graft at the time of mixed dentition.

7. Hearing disorders are caused by inflammation of the middle ear especially in children with cleft palate. It is recommended to have teams of physicians in the ENT speciality and audiologists to detect and treat these deficiencies as early as possible. Hearing is a serious condition that can cause important social and economic problems. It is a visible and slowly developing painless disability. People with such problems expect others to hear them normally. They can be ridiculed, ignored, they can become the constant target of the anger and frustration of family, colleagues, and aliens. It may lead to misunderstandings that affect interpersonal relationships.

8. Mental retardation is not more common in children with cleft lip and palate than in the rest of the population, but speech disorders and language deficiency are. It is important to create teams of specialist speech therapists and psychologists to correct speech and language disorders so that these children start talking right from the start. The main purpose in cleft plasty is to create the conditions for a favorable speech.

9. Psychological studies have shown that these children are frustrated, hypersensitive, anxious, concerned about their physical appearance. These children feel the need for more love and have been described as the opposite of creative people.

10. The aesthetic and functional results of surgical treatment can only be assessed in a few years. The cleft lip and palate affect physical appearance, speech, occlusion, so we will evaluate the end result at the end of the growth period. Poor results are related to: lack of protocols and periodic checks, fragmented care.

11. The need for treatment other than surgery is hardly understood by parents, perhaps due to increased costs such as orthodontic, logopedic, psychological treatment.

12. It is necessary to draw an alarm signal to change the mentality and include these children in national programs so that tomorrow's patients receive improved treatments.

13. Decentralized, fragmented care, with a low number of specialized staff, without treatment protocols and clinical guidelines, is associated with poor results. The reduced number of cleft lip and palate makes it impossible to organize multidisciplinary teams in order to raise therapeutic standards.

14. Significant results will be obtained when locally recognizing the need to improve treatments and attention to this type of malformation by modifying medical service budgets.

15. Successful treatment involves knowledge of surgical technique, local anatomy, and facial aesthetics. By self-examination, accurate evaluation of the results and great imagination, surgeons continue to make progress in repairing techniques. The treatment of sclefts has been evolving in recent years and trying to find the best methods. Achieving minimum standards of treatment remains a major challenge

16. The ultimate goal is to achieve an aesthetically favorable aspect with restoring the region's functionality and reducing as far as possible the number of surgical interventions.

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