


## THE PRESENCE OF CLEFT PALATE: PHYSICAL AND SOCIAL CONSEQUENCES

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### ABSTRACT

**Introduction:** The presence of cleft palate has several consequences for the integral development of the individual who is born with this anomaly, and in turn they vary from the impact on physical and social integrity. **Methods:** The theoretical framework used the SciELO and PubMed databases to search for studies from 2001 to 2023, in English and Portuguese. **Discussion:** The consequences of cleft palate are not widely disseminated, so it is insufficiently addressed, the impacts on phonation, breathing and mental health are serious and impact mortality rates. Cheiloplasty is one of the surgeries of choice and the presence of more procedures depends on the extent of the anomaly. Even so, early diagnosis and preparation of the family and the team that will assist the patient are of paramount importance to minimize such impacts. **Conclusion:** It is concluded that the presence of cleft palate is an enormous challenge for the patient and their companions. The insecurity and physical and social challenges demonstrate the importance of the surgical procedure.

**Keywords:** Cleft palate. Paediatrics. Physical consequences.

## INTRODUCTION

Embryology is responsible for explaining the structural formation of the human being, unveiling the formation of cells, tissues, organs, explaining division, cavitory formation and the organs themselves. During the third week of gestation, the germ layers, ectoderm, mesoderm and endoderm, are formed. The endoderm layer originates the respiratory and gastrointestinal tract. In the fourth week of gestation, the division of the digestive tract occurs and at this stage the processes that explain the changes that form the cleft palate or cleft lip will begin (MOORE et al., 2008). Cleft palate or cleft lip is the result of a failure in the embryological process, characterized by the lack or failure of intertissue fusion that makes up from the structures of the mouth to the oropharynx, in some cases. In addition, this congenital malformation has been increasingly common worldwide, but its etiology is not yet fully elucidated (SHIBUKAWA, 2019). Cleft palate has a low mortality rate, however the morbidity rate is notorious, considering that the presence of the anomaly requires nutritional, auditory, and dental support and is expensive. In addition, the condition requires psychological support, since the acceptance and challenges that involve social development affect not only the person with the malformation, but also the support network. In this way, demonstrating the importance of studies that highlight and raise awareness in society, in addition to boosting work in this area, with the aim of reducing the mortality involved (ATUKORALA, 2020).

## METHODOLOGY

The literature review presented has a theoretical framework taken from the SciELO and PubMed data platforms. The research period was from November 2023, the inclusion criteria were articles from the years 2001 to 2023, in Portuguese and English, books, online texts and full texts. The following health descriptors (DeCS) were used: "Cleft palate", "Multidisciplinary team" and "Consequences".

## DISCUSSION

During the fourth week of gestation, the digestive tract occurs in three layers, middle cephalic and caudal. From this age changes will last throughout the individual's life, such as the cleft palate, in this case lateral to the formation of the oral cavity, the brachial arches will give rise to the head and neck. The 1st brachial arch corresponds to the lower third of the face. Concomitantly, the central nervous system is developed and the frontonasal process develops and gives rise to the nasal fossae and processes. The junction of the primitive maxilla with the nasal processes was the primary palate, the cheek and the lateral upper lip.

These changes last an average of 10 weeks and the formation of the crack occurs at the failure at the junction of these structures. (MOORE et al., 2008).

The etiology is not yet fully clarified, however it is noticeable that genetic and environmental factors are involved, among which the most significant are smoking and alcohol (PINHEIRO, 2017). In addition, risk factors include advanced maternal age, male gender, and low birth weight. (RIBEIRO, E.; MOREIRA, 2004).

The cleft lip can present several conformities, being complete, incomplete, unilateral or bilateral and also symmetrical or asymmetrical. Early diagnosis can help in the prognosis, preparation of the multidisciplinary team and the family. Imaging tests have become fundamental for prenatal counseling. The evaluation takes place through morphological ultrasound, which is done in the first trimester of pregnancy and aims to visualize malformations. In the case of clefts, the incidence of the retronasal triangle is an important milestone for the evaluation of the palate (BUNDUKI et al., 2001).

Cheiloplasty is the surgery of choice for the synthesis of the cleft palate, for it to be successful it is necessary to have minimal tissue resection, anatomical preservation and reconstruction in the three planes, mucosal, muscular and cutaneous. (CAPELOZZA et al., 2002). Surgical management aims at language, speech, hearing, airway patency, psychosocial and aesthetic development (CAMPBELL, 2010 et al., 2002). In addition, ultrasonography obtains images that allow the observation of muscles in movement and at rest, and also allow them to be observed in different planes, so pre and postoperative planning will be more effective (POWER, et al., 2010).

The surgical procedure is not classified as an emergency, which allows many risks to be minimized. Avoiding the operation in children weighing less than 4500 grams, hemoglobin, white series and coagulogram with alterations. However, even with ideal conditions, the main complications are: hypoxemia, respiratory obstruction, hypovolemia, and edema. Most complications are related to anesthesia (BIAZON; OF CÁSSIA; PENICHE, 2008).

In order for the surgery to be performed according to the predilections mentioned above, the ideal team will be multidisciplinary, including a plastic surgeon, oral and maxillofacial surgeon, speech therapists, dentists, pediatricians, social workers and otorhinolaryngologists (FURR MC, et al., 2010). The protocol used includes lip and palate closure at first, followed by bone grafting, orthognathic surgery and secondary rhinoplasty to correct possible residual deformities. Rehabilitation and social insertion depend on the patient's adherence and the experience of the multidisciplinary team (SHAW WC, et al., 2001).

The presence of the cleft can affect everything from the functional aspect to the aesthetic aspect of the individual, in most cases, the individual has a hypernasal voice, problems chewing, breathing, in addition to aesthetics, suffering bullying and social stigma. These issues are directly related to the response to treatment, as well as its adherence and prevention of evasion. Psychological support is also a strong ally, both for the patient and for the companions who are responsible for going to the appointments throughout the patients' follow-up. Considering that patients with cleft palate have a higher risk of hospitalization for psychiatric disorders and consequently a high mortality rate (Guimarães et al, 2014).

## CONCLUSION

In turn, it is concluded that the presence of cleft palate is an enormous challenge for the patient and their companions. The insecurity and physical and social challenges demonstrate the importance of the surgical procedure. In addition, the success of the procedure depends directly on the therapeutic planning offered, most of the time by early diagnosis through ultrasound, which allows multidimensional observation of the extent and involvement of the cleft. Even if the images do not have the capacity to accurately reflect in some planes, the identification of the cleft helps not only in the surgery, but also in the preparation of the family nucleus and the multidisciplinary team. The team is fundamental for the development of the individual, considering that the various professionals will promote comprehensive care for the patient, preventing, in most cases, the mortality of this pathology from growing, since the risks for psychiatric disorders, difficulties in breathing, swallowing and phonation are present and seriously impact the quality of life of patients with this anomaly. Demonstrating the importance of studies that cover the various aspects of the life of individuals with cleft palate, from their early diagnosis to their development as a human being inserted and active in society.

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