

The Paradigm Shift in Cleft Care

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Received: September 19, 2019; **Published:** October 04, 2019

“The farther back you can look, the farther forward you are likely to see” - Winston Churchill.

The human face is a corridor of emotions, a gateway to verbal and nonverbal communication, and a criterion for social acceptance and mate selection [1].

It is a key, which generates a note and leaves a very long lasting impression in the minds of concerned parties. It automatically becomes a reference point for description and identification of individuals. The pleasant facial appearance awakens positive feelings and reactions in the family and other people, but altered facial appearance and speech are also immediately observable by others [2]. The aesthetics of facial structures are used by humans to determine, not only a person's beauty but his or her personality, intelligence, social class, trustworthiness, social skill, popularity and overall goodness [3].

Its an honour to be associated with the divine mission of transforming life's of cleft children.

During review an adolescent girl revealed that her only prayer now to god is that she wants her nose to be corrected; so far she had undergone her cleft lip and palate deformities corrected. Many children born with cleft deformities, their parents and children have these silent prayers; they are often side lined from the mainstream society and as clinicians it's our collective responsibility to lead them back to normal life [4].

Treatment for cleft lip and palate is multidisciplinary by nature and takes place mainly during the first 20 years of life. Ideal treatment objectives are improved aesthetics, good speech, good function and positive self-image [5].

The most promising happening in cleft care in the last decade include:

- **Antenatal diagnosis and Neonatal counselling:** More accurate diagnosis and effective counselling is now possible with the advent of 3D and 4D scanning, this also helps in reducing the anxiety of parents.
- **Presurgical orthopaedics:** Infant orthopaedics like nasoalveolar moulding is usually performed in the first few weeks of life to realign the cleft segments.
- **Primary surgery and modern anaesthesia care:** With the latest advances in anaesthesia care, quality of surgical care has improved in leaps and bounds. The aim of cleft lip surgery is to create an aesthetic and functional result with minimal scarring. The muscles of the lip and floor of the nose are reconstructed during the operation and in palate repair the surgeon aims to both close the cleft, and more importantly anatomically reconstruct the muscular 'sling' of the soft palate so that velopharyngeal closure can be achieved. This is required for the development of speech. The timing of surgery in cleft deformity remains controversial, but every case represents a compromise between function, development and appearance versus scarring, and its effect on growth.

- **Speech and language therapy:** Even after cleft palate repair, speech is still vulnerable to disorders of resonance and articulation which can affect child in having intelligible speech. This requires a coordinated approach between specialist and speech pathologist trained in this field.
- **Hearing:** There is a well-recognized association between cleft palate and middle ear disease that is related to failure of the ventilatory function of the eustachian tube. ENT surgeons have an active role in tackling this issue.
- **Psychology:** The psychological care of the cleft patient and their parents begins at the time of diagnosis. The importance of psychologists involvement in the cleft team is becoming increasingly apparent.
- **Dental health:** The aim of the paediatric dentists is to try to prevent decay, minimize restorative necessity, prevent infection and prevent tooth loss with its associated alveolar bone loss, as this could complicate future cleft surgery.
- **Alveolar bone grafting and cone beam CT:** Clefts of the alveolus lead to significant displacement of adjacent teeth and hinder their orthodontic alignment. The increasing availability of cone beam CT is allowing detailed assessment of the cleft site pre-bone grafting. This allows accurate positioning of any supernumerary teeth as well as any permanent teeth adjacent to the cleft site. It is also enables production of three-dimensional stereolithographic models.
- **Orthodontics:** Orthodontists monitors tooth eruption and growth throughout childhood as well as aligning the dentition and preparing the cleft site for alveolar bone grafting. They also have an active role in correction of dental and skeletal deformities.
- **Orthognathic surgery and distraction ontogenesis:** Cleft children with the need for multiple surgeries at various stages in life are bound to have dental and skeletal growth disturbances, both these treatment modalities are used in providing better functional and aesthetic appearance.
- **Electronic patient record and digitisation:** A great advance for clinicians involved in cleft care is the use of digitisation and maintenance of electronic patient records. This spans traditional organization boundaries and allows access to all clinicians working with the patient. At birth each patient can be registered and their records including radiographs, photographs and correspondence stored electronically. Items such as protocols and audit sheets for different specialities can be included.

The Future

1. With the identification of various genetic and environmental factors involved in causing cleft deformities, let's hope for a day that we work to prevent formation of these deformities.
2. Techniques to reduce scar formation after surgery on a cellular level.
3. Speech after cleft palate surgery always an enigma, lets strive in giving them perfect intelligible speech.

Let's hope, pray and together work in providing these children a better life!!

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Volume 18 Issue 11 November 2019

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