HUMANITARIAN CLEFT MISSION TO CENTRAL AFRICA – EXPERIENCE AND SUGGESTIONS

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ABSTRACT

This paper is to report and share our experience regarding the cleft missions in the developing world. In October 2009, an international organization, Smile Train Italia, helping children with cleft lip and palate, arranged a humanitarian mission to the Democratic Republic of Congo. We operated 93 Patients with Cleft lip and Palate during our stay in the Kinshasa university Hospital Congo. A total of 93 patients were operated in which 70% were with unilateral cleft lip,6.45% patients were with bilateral cleft lip & 37.6% patients were with cleft palate. It is the right of every child to speak and smile especially those who born with Cleft lip and Palate. This should be the ultimate goal of all humanitarian Cleft missions working in the developing countries.

Key Words: *Cleft lip and Palate, Humanitarian missions, Plastic surgeons.*

This article may be cited as: Ulllah T, Abenavoli MF, Altacera M, Servili A. Humanitarian Cleft Mission to Central Africa – Experience and Suggestions. J Postgrad Med Inst 2011; 25(4): 373-5.

INTRODUCTION

Plastic surgeons have a long history of traveling abroad to operate congenital and acquired deformities in patients who have no access to care. Inherent in this process is a transfer of resources e.g., intellectual, technological and financial etc.

It is estimated that 15 million new babies are born worldwide annually[1]. of these144 million births occur in the developing world. Every year almost a quarter of a million babies with cleft lip and or palate are born in the poorest part of the world where the economic resources are severely limited and the health care facilities are scarce or non-existent[2].

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Date Received: October 27, 2010
Date Revised: August 7, 2011
Date Accepted: August 16, 2011

The majority of children born with cleft-lip and palate in a poor country receive very limited or no treatment at all. So there is a huge backlog of unoperated or poorly operated patients in these countries.

Why children with congenital or acquired deformities are not treated in the developing countries? There is no single explanation but on exploration and analysis, we find a number of factors e.g., economic reasons, technological limitations, lack of technical and skilled surgeons and cultural reasons.

Regarding the humanitarian missions to the developing countries we observe three different types of phenomenon. At one end of the spectrum a single surgeon travel abroad with donated instruments and medicines and is self supported. The surgeon selects a few patients and operates them in the best available operation setting available. In the 2nd group we observe small groups of surgeons who develop long term relationship with the medical professionals in the developing countries and they visit their friends regularly. The local medical professionals select patients before the arrival of the surgical team and later on the local professionals will also look after and follow up operated patients.

In the 3rd group we observe well organized and financed organizations that sponsor large scale humanitarian missions. These organizations adopt a strategy to involve the local medical and surgical community. The main aim is to develop the local infrastructure and train the doctors to have a home grown care. The ultimate goal of these highly organized organizations is to build an infrastructure, train personal and develop a self supporting care system[3].

Specific guidelines for humanitarian plastic surgery missions are set out by international bodies such as VIPS (Volunteers in Plastic surgery Programs), ACPA (The American Cleft Palate Craniofacial Association) and IPRAS (The International Plastic Reconstruction and Aesthetic Society). Abenavoli FM (2005) stated that organizations that empower the local medical community are those that integrate with and attach themselves to the domestic socio – medical community, by working together with physicians and paramedics in personal and collaborative manners to share professional experiences and by donating medical equipments that allow these professionals to become autonomous in their local efforts[4].

THE EXPERIENCE

In October 2009, an international organization, Smile Train Italia, helping children with cleft lip and palate, arranged a humanitarian mission to the Democratic Republic of Congo.

Democratic Republic of Congo is a Central Africa state with a population of 72 millions. It is the 18th most populous nation in the world and the 4th most populous nation in the Africa. The total duration of the mission was 10 days i.e. from October 8, 2009 to October 18, 2009. We operated 93 Patients with Cleft lip and Palate during our stay in the Kinshasa university Hospital Congo (Figure 1).

Total Number of patients = 93

Unilateral Cleft lip = 66(70%)

Bilateral Cleft lip = 06(6.45%)

Total Cleft Palate = 35(37.6%)

(14 Cleft lips + Palate and 21 Isolated Cleft palate)

Male patients = 66

Female patients = 27

During this humanitarian mission we selected patients for surgery and counseled the parents and local doctors about the pre operative, per operative and post operative care of the patients. We evaluated the laboratory, operation theaters and anesthetic facilities.

All the patients were examined by the Plastic surgeons and anesthesiologists. Pre operative and post operative photographs have taken of all the patients for record keeping and quality assessment.

Few ethnic anatomic differences observed in African patients with Cleft lip and Palate.

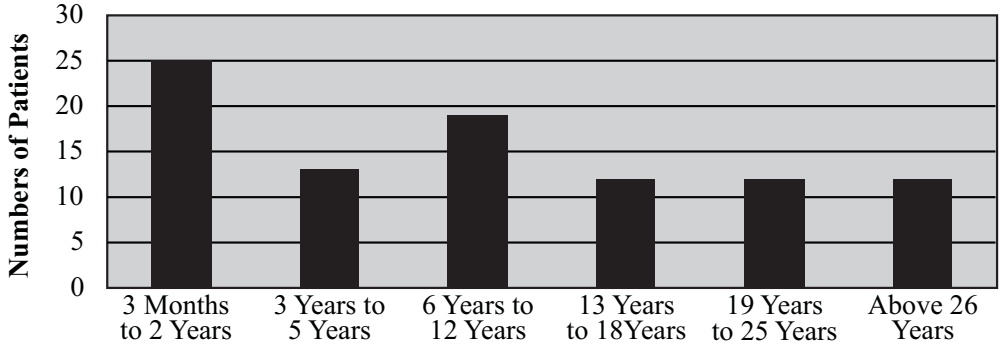
The skin of these patients was very thick and hard to make precise incisions. So we adopted a strategy to use multiple surgical blades for making incisions and dissection.

During the Palate repair, it is observed that the muco periosteal flaps where very thin in all these patients probably because of malnutrition.

In all the Cleft lip patients we performed the Millard's repair.

It is a universally accepted technique that produce good result and relatively easy to teach the local trainees[5,6]. The surgical situation in a bilateral Cleft lip is much more complex than the unilateral Cleft lip[7,8]. In most of the patient the premaxilla was very portending. In 4 patients with bilateral Cleft lip we performed Millard's Forked flap technique and in two patients Mulliken's repair performed[1]. Two flaps palatplasty performed in all the 35 patients with Cleft palate. This technique was initially described by Veau with muscle dissection and posterior repositioning which restores normal Velopharyngeal anatomy. We adopted this technique because it is reproducible, easy to teach and yields excellent surgical and speech outcome[7].

Figure 1: Smile Train Data Chart



DISCUSSION

Selection of patients for surgical procedure during such missions in a developing country has a number of limitations which should be considered and discussed among the team members e.g. availability of laboratory facilities, facilities in the operation theaters, hygienic conditions inside the operation theaters and post operative environment[8].

Anesthesia for Cleft lip and Palate Surgery demands good pre operative assessment and extra vigilance in the peri operative period. So this situation should be clear during a humanitarian mission in a less developed country with limited health care facilities. Shortages of anesthesia medicines, faulty anesthesia machines and lack of trained anesthesia technician and anesthetists should be considered before starting the operation list[9].

Doctors are considered the most respectable members of the society so all the team members should wear proper dress during such humanitarian missions. Developing countries have deeply conservative life style and the conduct of the team members needs to reflect respect for that.

The participation of local surgeons with the visiting surgeons are absolutely important. The local doctors should be present while selecting patients for surgery. This practice will demonstrate the importance of multidisciplinary team approach and when they will participate in the surgery sessions they will be already aware of the pre operative plan and post operative management.

Keeping all the above facts in mind we suggest few guidelines for medical humanitarian missions in developing countries.

1. We should play a dual role of teachers and medical care providers. In Kinshasa university hospital we arranged a one day cleft surgery workshop for the local surgeons and it was well attended by the local doctors, nurses and paramedics.
2. We should involve the local doctors which will allow more effective treatment and transfer of skill.
3. All the participants of the missions should fully understand and respect the host country law, customs and the social system.
4. Proper measure should be taken to insure health and safety of the voluntary participant. The incidence of HIV in Congo is 3.4%. So the visiting team members and the local doctors should be more careful while operating during the missions.
5. We should select single procedure which is easy to perform and easy to teach. As we performed Milland's repair in all our patients. It is the basic technique of Cleft lip repair which yeilds excellent aesthetic outcome.
6. The main aim should be based on the age old concept of “teach a man to fish”. So we should help the local doctors to develop the infrastructure and home grown health care system.

It is the right of every child to speak and smile especially those who born with Cleft lip and Palate. This should be the ultimate goal of all humanitarian Cleft missions working in the developing countries.

The last suggestion is a Chinese proverb – It is better to light a candle than curse the darkness.

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CONTRIBUTORS

TU, FMA, MA and AS, contributed equally to the research and preparation of the manuscript. All authors listed contributed signi?cantly to the research that resulted in the submitted manuscript.

GRANT SUPPORT, FINANCIAL DISCLOSURE AND CONFLICT OF INTEREST

None Declared