Research Paper

Developing and delivering high quality surgery into community in LMIC: Experience in Kerala, India

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ARTICLE INFO

Keywords:

High quality cleft care
Cleft lip and palate
LMIC
Adenwalla
Smile train
Multi disciplinary care
Comprehensive cleft care

ABSTRACT

The road to the delivery of high-quality cleft surgery into communities in the LMIC is beset with numerous hurdles. These include the availability of trained health care personnel, the availability of infrastructure in health care, parent awareness of the need for timely interventions in these children, presence of affordable treatment centres with adequate means of transport to and from these facilities for patients coming from the interior rural locations, but most importantly, the financial considerations that are the underlying limitations in most of these above mentioned considerations. We would like to approach this problem by describing the evolution of our own centre over several decades. Our centre, The Charles Pinto Centre for Cleft lip and palate at the Jubilee Mission Hospital is located in Thrissur, in the beautiful state of Kerala.

In the late 1950s, Dr HS Adenwalla who had trained under experts in the art of Cleft Lip and Palate Surgery in Mumbai joined the hospital and transformed it through sheer dedication and meticulous clinical expertise into a major hub for treatment and also training in this speciality. In this endeavour he was greatly helped by non governmental organizations of which Smile Train deserves special mention in view of its model of functioning, empowering local partners by adequate funding for treatment, training and establishment of infrastructure, while ensuring strict adherence to safety standards.

We believe that it is essential that there should be trained and dedicated health care personnel who are willing to treat such patients without an eye on the monetary benefits accrued, and also enough funding either from the government or from the NGOs to provide equipment and infrastructure for safe, high quality and accessible treatment and the establishment of multidisciplinary management. Lastly, the patients should also be made aware of the need for timely treatment and long-term follow-up.

The road to the delivery of high-quality cleft surgery into communities in the LMIC is beset with numerous hurdles. These include the availability of trained health care personnel, the availability of infrastructure in health care, parent awareness of the need for timely interventions in these children, presence of affordable treatment centres with adequate means of transport to and from these facilities for patients coming from the interior rural locations, but most importantly, the financial considerations that are the underlying limitations in most of these above mentioned considerations. The nature and the importance of these factors vary widely even in the different parts of the same country and certainly among different countries. Hence, generalizations on the methods of overcoming these are best avoided.

We would like to approach this problem by describing the evolution of our own centre over several decades. Our centre, The Charles Pinto Centre for Cleft Lip and Palate at the Jubilee Mission Hospital is located in Thrissur, in the beautiful state of Kerala. Today this town is bubbling

with all the signs of economic development. It is known as a centre of excellence in Education and in Fine Arts and is known as the cultural Capital of the State.

However, back in the late 1950s this was a little developed area with hardly any healthcare facilities. Our hospital, the Jubilee Mission Hospital was then functioning almost as a medical dispensary (Fig-1) with patients using it as transition to seek better care in the more famous cities like Madras (Chennai) or Vellore.

That was the setting into which Dr. Hirji Sorab Adenwalla (Fig-2) landed from his ancestral state of Maharashtra. He had trained in Bombay (now Mumbai) under great stalwarts in well-established institutions. He had been trained in the art of cleft care by doyens like Charles Pinto and Eric Peet. He had also done a residency in Anesthesia. He had a burning passion for the treatment of cleft patients in particular and all aspects of surgery in general.¹ He meticulously set out to establish the centre by single handedly managing all the surgery,

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<https://doi.org/10.1016/j.jobcr.2021.09.005>

Received 20 August 2021; Accepted 7 September 2021

Available online 10 September 2021

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Fig. 1. The old Jubilee Mission Hospital in 1970s.

Fig. 2. Dr.H-S Adenwalla (on the right) with his mentor Dr. Charles Pinto.

Fig. 3. The operating theatre at the Jubilee Mission Hospital in early 1970's.

Fig. 4. The present day operating theatre with modern anesthesia equipment bought with Smile Train funds.

anesthesia, radiology and so on. He built up a team of good nurses who then went on to train many others. He also roped in specialists in other fields of health care. Thus, from its humble beginnings, this dispensary gradually became well-established as the poor man's hospital where patients from low and middle income families could get quality treatment.

Eventually he turned his attention entirely to the care of cleft lip and palate patients. Here again, he faced the inevitable hurdles like the lack of financial support, absence of allied specialties like speech and language services, orthodontics etc. With the same dedication, he took it upon himself to perform the various roles required for the care of these patients.

Subsequently some charitable organizations like the SIMAVI, the Rotary Club of Dokkum, and the Soroptomists Club, all in Holland, provided some financial assistance that helped him treat deserving cleft patients for free. However, there was a limitation in the numbers that could be treated. In addition, there was no help for the expansion of the unit to include a full team and the infrastructure was at best just basic. (Fig-3).

Then in the year 2000, Smile Train, an NGO based in New York, established partnerships in India and he was among the first to enter into such a partnership. This was a dramatic development. While Smile Train was willing to provide the much needed funds for treatment, they also ensured that there would be no compromise in the adherence to their safety protocol. With this aim, they also funded the institution for the establishment of infrastructure and equipment including the state-of-the-art anesthesia work stations, better operation theatre lights, equipment for nasoendoscopy etc (Fig-4).

Smile Train insisted on the development of safe and comprehensive cleft care. With this aim, they aided in the establishment of speech pathology services and orthodontics by providing funds for the equipment and also in training these personnel at centres of excellence.

Thus, very soon, this medical dispensary of the 1950s was transformed into a major hub for comprehensive cleft care with a full team of experts offering all aspects of treatment under one roof at no cost to the deserving patients (Fig-5).

In terms of training too, the centre has come a long way and is now accepting trainees from India and abroad for training in cleft surgical techniques. The centre is also embarking on major research projects to look into the genetic aspects of clefts, again with the aid of a grant from Smile Train.

It must be stressed here that though Smile Train is always helping partners with funds for treatment, it ensures that there is strict adherence to safety protocols.² The quality of the treatment is also constantly audited by global experts. This is the reason why this organization has helped in the creation of a revolution in the treatment of cleft lip and

Fig. 5. The Charles Pinto Centre Team with Dr. Adenwalla (in white).

Fig. 6. The present day hospital.

palate patients (Fig-6).

To illustrate the magnitude of the impact of Smile Train, it is worth highlighting the situation in our own institution. In the 40 years prior to the entry of Smile Train, 8647 surgical interventions were performed here on cleft patients. However, in the 20 years following the establishment of Smile Train partnership the number of surgical interventions

increased to more than 14,000.

So, coming to the solution to the problem of delivering quality cleft surgeries to the community in LMIC, it is essential that there should be trained and dedicated health care personnel who are willing to treat such patients without an eye on the monetary benefits accrued, and also enough funding either from the government or from the NGOs to provide equipment and infrastructure for safe, high quality and accessible treatment and the establishment of multidisciplinary management. Lastly, the patients should also be made aware of the need for timely treatment and long-term follow-up. This was less of a problem at our centre in view of the high literacy rates in our population of Kerala, with good patient awareness. These are not easy steps. However, they are essential to establish high quality surgical self-sustainable care of cleft patients in the remote and poor areas in LMIC countries for the benefits of the cleft patient communities. They are the very steps that were followed by a dedicated surgeon at our centre, resulting in a major transformation. There is no reason why this model should not be successful in other similar setups.

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