

Healing Little Hearts

Voluntary outsourcing of NHS

– giving and gaining

Mr Ramana Dhannapuneni FRCS (CTh)

Consultant Cardiac Surgeon

Alder Hey Childrens Hospital NHS Trust, Liverpool, UK

Lead Surgeon and Trustee, Healing Little Hearts charity, UK



Mr Ramana (Ram) Dhannapuneni MBBS, FRCS, FRCS (CTh), MBA (Health Executive). Ram is an alumnus of Rangaraya Medical College, Kakinada, India. His interests include neonatal and complex intraventricular cardiac surgery, pectus and chest wall surgery. He was a recipient of British Heart Foundations Healthcare Heart Hero in 2019.

Congenital heart defects (CHD) are the commonest cause of stillbirths, neonatal and infant mortality globally after infections. The global prevalence of CHD at birth in 2017 is estimated to be about 1.8 cases for 100 live births, a 4.2% increase since 1990.¹ The incidence of severe or moderate to severe CHD is about 6/1000 live births². The higher the fertility rate and birth rate which usually is associated with poverty and illiteracy, the greater number of children born with CHD in those countries.³ (Figure 1).

About half of these children would require lifesaving operation within the first year of life. About 20% all surgeries performed at Alder Hey are in new-borns, 40% in Infants under 1 year and 35% under 16 years. The advancements in medicine in general and cardiac surgery in particular along with investments in health care in the developed world led to early detection, effective & efficient care resulting in very low mortality.⁴ (Figure2).

About 80% children with CHD in developed world lead good quality of life with normal life expectancy. However, the situation is contrastingly different in the developing,

underdeveloped and poorer countries of the world. It is estimated that over 1.3 million children are born with CHD each year and about ¼ of these die every year due to CHD in the world. In addition to CHD, most of these countries have the burden of rheumatic heart disease in children requiring heart valve surgery.⁵ India provides a very good example of the incidence and treatments for the CHD.

CHD in India

With over 1.3 billion population and with high fertility and birth rates, more children with CHD are born in India than in any other country. Despite its rapid economic growth more poor people live in India than in any other country. The governmental and private health care expenditure is about 3.5% of GDP in India compared with about 9.7% in the UK, 11.2% in France and 11.2% in Germany (World Bank data). Though there are world class facilities available in private/corporate hospitals and a few premier governmental teaching institutes in major cities, vast majority of children and parents can neither access these facilities nor afford the costs as most come from rural areas and from poor background.

The ratio of cardiac surgeons to population is about 1 to 3.5 million in Europe and North America whilst it is 1 to 25 million in Asia and 1 to 35 million in Africa.³ Paediatric cardiac surgery is a very highly specialised area with complexities in diagnosis, surgical correction and post-operative care. Though a highly rewarding speciality, the stresses and strains of the job and not having a similar financial incentive, paediatric cardiac surgery does not attract many trainees as

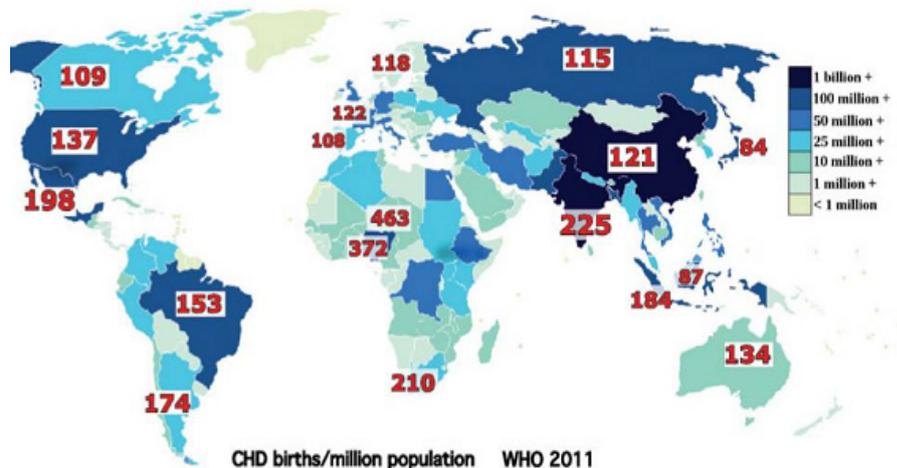


Figure 1 Number of children born with congenital heart disease per million population

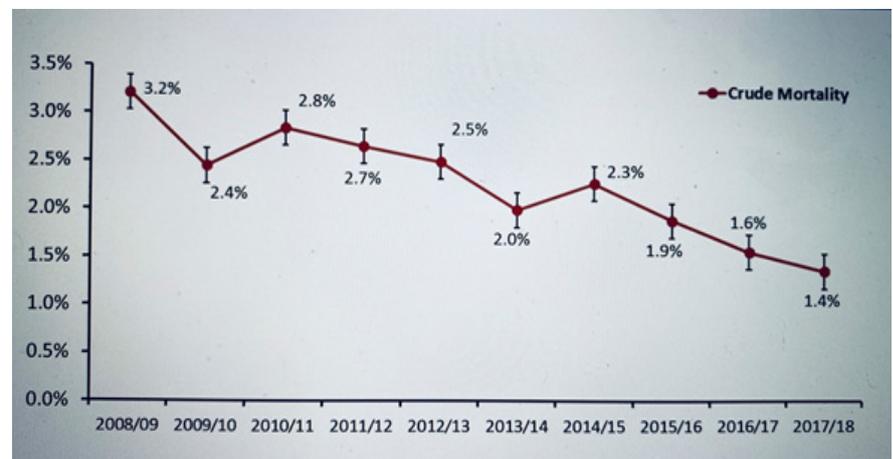


Figure 2 Trends in 30 days unadjusted mortality after surgery over 10 years in UK (2008/09 - 2017/18 financial years) in children (under 16 years)

compared to adult cardiac surgery in India. The interest in paediatric cardiac speciality in general is improving and the private hospitals are encouraging operations though they are expensive. Many state governments now fund childrens heart surgeries in private hospitals with schemes like "Arogyasree" which was first established in erstwhile combined Andhra Pradesh state in 2007.

Healing Little Hearts

Healing Little Hearts (HLH charity) is a UK registered charity (1130194) founded in 2007 by Dr Sanjiv Nichani OBE, a consultant paediatric intensivist from Leicester with an aim to send out medical teams to those areas where childrens heart surgery is not available or not affordable. The charity has so far performed over 2000 heart surgeries in about 12 countries in 3 continents.⁶ (figure 3). The value of these operations if performed in the NHS in UK is worth about £25 million.

The HLH charity raises funds through donations and from various fundraising activities in UK. Everyone involved with the charity volunteers their time resulting in 95% of donations directly reaching out for the cause. The charity organises and sends out teams of about 6 to 10 specialists including cardiac surgeon, cardiologist, anaesthetist, intensivists, perfusionist and nurses on camps organised in association with host hospitals. The volunteers come from many of the paediatric heart centres in UK and some from Europe and Australia.

The camps last for a week providing free heart surgeries. The host hospital might fund itself, seek governmental and other charities help to cover the local costs of operations. The HLH team not only involves in screening, diagnosis, treatment and operations but would spend time in teaching the local teams, residents, training the surgeons and anaesthetists. Often there would be CME programs aiming at the general paediatricians in the city and surroundings. Even after returning back, the HLH team continues to provide support in aftercare of not only the patients operated in the camps but helping the local teams to provide sustainable treatment and surgeries.

One fine example of HLH charity's long-term collaboration since 2015 resulted in establishing a full fledged paediatric cardiac surgical program at Andhra Hospital in Vijayawada in India as the local team now performs about 25 operations per month with continued help and support from HLH volunteers.

Reverse benefits to the volunteers and the NHS

Apart from providing a sense of fulfilment, the camps provide a great opportunity for professional learning, aptitude development and teamwork. Advanced pathology, unfamiliar conditions and limited resources would provide a great opportunity to learn new things, innovate with new techniques and work efficiently under pressure, which would be a great skill to acquire and bring back to the normal job in the NHS. The teams bond well during these camps and also learn the value of working together within teams and across the teams. There is a great opportunity for professional networking and social friendships. The camps have been a source of attracting trainees to come and work in the NHS in related specialities of paediatric cardiac surgery, cardiology and intensive care by sponsorship through Medical Training Initiative. This was of mutual benefit not only served our hospitals where there is always a shortage of workforce in these areas but for the trainees and the developing countries as these would return and establish paediatric cardiac centres with continued support.



Healing Little Hearts Global Foundation

HONOUR: OBE FOR DR SANJIV NICHANI



Dr Sanjiv Nichani, Consultant Paediatrician at the Leicester Royal Infirmary and Glenfield General Hospital was awarded with an OBE in the Queen's Honours Lit Oct 2020. He is also founder of Healing Little Hearts.

References:

- GBD 2017 Congenital Heart Disease Collaborators. The Lancet, Child and Adolescent Health: 2020; Volume 4, Issue3: 185-200
- Hoffman JI, Kaplan S. The incidence of congenital heart disease. J Am Coll Cardiol 2002; 39: 1890-1900
- Hoffman JI. The global burden of congenital heart disease. Cardiovasc J Afr. 2013 Jun;24(4): 141-145
- National Institute for Cardiovascular Outcomes Research, UK. National Congenital Heart Disease Audit; 2019 summery report. Page 5. <https://www.nicor.org.uk/wp-content/uploads/2019/09/NCHDA-2019-Summary-Report-final.pdf>
- Report of WHO Expert Consultation, Rheumatic fever and rheumatic heart disease. 29 Oct - 1 Nov 2001. World Health Organisation, Geneva 2004 (Technical Report Series, No. 923)
- Healing Little Hearts, Registered charity in UK. www.healinglittlehearts.org.uk