Dentistry role in cleft lip and palate management

Cleft lip and palate is a common congenital maxillofacial deformity, with incidence rate varying among different ethnic groups. There is serious tissue defects with loss of maxillary bone segment and tissue displacement involved, affecting both appearance and function. This deformity causes major challenges because of associated problems, i.e., feeding, conduct disorder high treatment cost, ear infection, hearing loss, language difficulty. With the advancement of science and technology, new surgical techniques and treatments greatly improve the effectiveness of treatment of cleft lip and palate. Current approach to cleft lip and palate treatment is beyond simple surgical repair which include restoration of appearance and function, psychological problem, and changes in growth and developments. Optimal management utilizing an integrated and collaborative and multidisciplinary approach is particularly important and is almost standardized in US and Canada. This collaborative team involves: plastic surgeon, anesthesiologist, pediatric dentist, orthodontist, maxillofacial surgeon, dental surgeon, speech pathologist, audiologist, feeding nurse, pediatrician and otolaryngologist. Dentistry's role involves the following disciplines: pediatric dentist, orthodontist, maxillofacial surgeon, and prosthodontist. Cleft lip and palate sequential treatment approaches different growth stages with different therapeutic targets. Neonatal period pursue physical appearance and functionality; pre-pubertal period guide arch form development and completion of alveolar bone graft; puberty aims at improve function; orthognathic surgery repair occur following growth and development completion. With respect to the various dental specialties the following are their roles in the treatment of cleft patients; Maxillofacial surgeon: Performs secondary alveolar bone grafts, combines with the orthodontist to correct facial skeletal deformities, augments bone and places implants with the prosthodontist. Prosthodontist: Coordinate with the orthodontist and surgeon during treatment planning, replace missing teeth, restore esthetics, and assure longevity of functional dentition. Orthodontist: Works with the pediatric dentist in the mixed dentition, guidance for the permanent occlusion and maxillo-facial complex, treats the permanent dentition, develops treatment plan for orthognathic surgery with the oral-maxillofacial surgeon and the prosthodontist. Pediatric Dentist: Serves as patient plus parent advocate in infancy and mixed dentition phase treatment, provide unique perspective of the whole child and the preparation of early and overall dental treatment plan (with the team), and finally, its integration and implementation. This program was initially introduced to China in 1999 through multiple exchange programs with Canada and the US. Over the past decade there has been close to 3000 cleft lip and palate patients treated at the Guangzhou Center alone.

Biography

T P Chiang is the President of Canada China Child Health Foundation, Canada. She has done her BSc, DDS and Doctorate in Dental Medicine from Dalhousie University, Canada. She has completed her Master of Science in Epidemiology from Harvard University. She did her Post-doctoral studies at Massachusetts Institute of Technology, Boston Children’s Hospital in Pediatric Dentistry. She is a Professor at University of British Columbia, Beijing Children’s Hospital, Beijing Institute of Pediatrics and Children’s Hospital of Harbin. She is the Honorary President of Nanjing Medical University Dental Hospital, Consultant at child health hospitals of Guangzhou, Suzhou Health College, and Chongqing Medical University.