

# 24<sup>th</sup> Global Dentists and Pediatric Dentistry Annual Meeting

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### Importance of Dentistry in the management of cleft lip/palate

Dentistry plays an important role in the management of cleft lip and palate. Pediatric dentist is generally the first person to have contact with the cleft child patient. It is a common congenital maxillofacial deformity involving serious tissue defects and associated problems, early treatment would allow better prognosis in the end result of cleft lip/palate treatment. There is profound tissue defect involvement with maxillary bone segment loss and tissue displacement, affecting both physical 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. Prevalence of cleft lip and palate ranks extremely high among congenital anomalies in the whole world. It is the second most common birth defect in the United States. Worldwide, oral clefts in any form occur in about one in every 700 live births. In fact prevalence rate vary among different countries and even ethnic groups within the same country. Overall, higher rates have been reported in Asians and American Indians (1/500 births), and lower rates have been reported in African-derived populations (1/2,500 births). Current surgical techniques and managements greatly improve the treatment effectiveness of cleft lip/palate. Cleft lip and palate management extend beyond simple surgical repair and encompass restoration of appearance and function, psychological problem, and changes in growth and development. An integrated and multidisciplinary approach is particularly important in achieving optimal result and is almost standard in US and Canada. Collaborative team would involve: pediatric dentist, plastic surgeon, anesthesiologist, orthodontist, maxillofacial surgeon, and speech pathologist, audiologist, feeding nurse, pediatrician and otolaryngologist. Cleft sequential treatment approaches growth stages with different therapeutic targets. Neonatal period pursue physical appearance/ functionality; prepubertal period guide arch form development and completion of alveolar bone graft; puberty aims at improve function; orthognathic surgery follows growth and development completion. There are four stages of treatment approaches: neonatal phase-obturation, tissue molding and orthopedic appliance; primary and mixed dentition phase-orthodontics and orthopedics; permanent dentition-comprehensive orthodontics and orthopedics; and final phase-+/- orthognathic surgery including distraction osteogenesis. The goals of the treatment protocol are to perform pre-surgical orthopedics during infancy including selection/insertion of pre-surgical device, followed by surgical repair of cleft lip/palate. This will be followed by expansion/alignment, alveolar bone graft closure of oronasal fistula during the mixed dentition phase, fixed orthodontics during the permanent dentition phase synchronized with orthognathic surgery. This will be finalized with prosthetic and esthetic reconstruction. These dental treatments would complement the rest of the interdisciplinary team. This would enable the team to achieve maximum result in the comprehensive patient management allowing the building of proper dental arch form, facial and dental alignment, speech, esthetics, function and psychological aspects of the patient.

### 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.

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