Biomedical Research Award

Dr. Pradip Shetye, NYU Langone Medical Center

Dr. Pradip R. Shetye is an Assistant Professor of Plastic Surgery (Craniofacial Orthodontics) at NYU Langone Medical Center and Director of Craniofacial Orthodontics Fellowship. He also has an appointment as Clinical Assistant Professor of Orthodontics at NYU College of Dentistry. Dr. Shetye received his DDS from the New York University College of Dentistry, and his post-graduate Certificate in Orthodontics from St. Barnabas Hospital. He completed an Advanced Craniofacial Orthodontics Clinical Fellowship from the University of Illinois at Chicago and Craniofacial Orthodontics Research fellowship from the NYU Institute of Reconstructive Plastic Surgery. Dr. Shetye is Diplomate of the American Board of Orthodontics. Dr. Shetye has received several awards for clinical excellence including the Henry Kawamoto Award from the American Society of Craniofacial Surgeons, Joseph E. Johnson Award and Charley Schultz Award both from the American Association of Orthodontics and T. C. White Award from the Royal College of Physician and Surgeons of Glasgow. Dr. Shetye's clinical and research interest primarily focuses on orthodontic treatment of patients with cleft lip and palate and craniofacial differences. He has published several papers and presented at international meetings in the field of cleft lip and palate and craniofacial surgery.

The proposed plan for this American Association of Orthodontists Foundation Orthodontic Biomedical Research Award is for one year at New York University Langone Medical Center. The specific goals to be achieved through the AAOF Biomedical Research Award are to enhance my knowledge in practice, clinical research and teaching in the area of craniofacial anomalies. I am actively involved in teaching and supervising the craniofacial orthodontic fellows in our first CODA accredited craniofacial orthodontic and special care fellowship program.
**Research Synopsis**

With the introduction of Naolaveolar Molding (NAM) (Grayson and Cutting 1992) there has been a paradigm shift in the presurgical Infant Orthopedics treatment in patients with cleft lip and palate. Centers providing NAM therapy and modified their surgical techniques have started showing better outcomes. Shape, form and nasal esthetics in patients with cleft are significantly better in patient who had the benefits of NAM than compared to patients who did not have NAM therapy. Early nose and lip revision become unnecessary if the first nasal repair is done properly utilizing the benefits of NAM therapy.

One of the areas that have not yet been studied is the reduced need for pre-maxillary reposition surgery for patients with bilateral cleft lip and palate who had NAM therapy. Eliminating pre-maxillary repositioning surgery during mixed dentition will have significant benefit for a child with cleft lip and palate. Literature has demonstrated that pre-maxillary surgery in a growing child has deleterious effects on the maxillary growth.

The purpose of our study is to describe the morphologic changes in maxillary alveolar dimensions, including the position of premaxilla, in children with nonsyndromic complete bilateral cleft lip and palate (BCLP) following NAM treatment. These changes will be compared to an age matched non-cleft population. The sample will be studied further to evaluate the need for pre-maxillary reposition surgery during mixed dentition.