



Naso-Alveolar Molding in Cleft Lip and Palate Neonates – A Holistic Approach

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Dear Editor-In-Chief,

Various congenital oro-facial cleft defects like cleft lip/palate are seen in neonates in India due to increased practice of consanguineous marriages happening among different communities. ^[1] To decrease the burden of surgical impact and to facilitate the brought up of an infant afflicted with congenital oro-facial defect like cleft lip/palate, Grayson has suggested a holistic approach called “Naso-alveolar molding (NAM)” or “Presurgical Naso-alveolar Molding (PSNAM).” ^[2,3] The main hypothesis of this technique is to restore the normal anatomical architecture of the cleft region, cartilaginous tissue, soft tissue and skeletal components in order to obtain better post-surgical results. ^[1,2] Pertaining to application this novel technique numerous research studies undertaken in the context of cleft lip/palate to show-case the long-term effects of NAM. A recent bibliometric analysis extracted total 69 articles from PUBMED database about NAM/PSNAM. This analysis explained that authors like Ritschl LM, and Thakur S contributed the greatest number of publications. ^[1] India bagged with huge number of publications (26) followed by USA (14). Maximum publications were found in the journal Plastic Reconstructive Surgery Global Open. ^[1] Another bibliographic analysis of Indian contribution from global perspective in application of PSNAM revealed 6.65% of Indian contribution (31 articles). ^[4] More number of case reports (N=15) followed by case control studies (N=5). Thakur S conquered credit of highest publications. Journal of Indian Prosthodontic Society and Contemporary Clinical Dentistry journals shared maximum articles published (N=5 each) having impact of 0.265 and 1.2 respectively. South zone of India showed highest contribution (N=12) in that Karnataka state bagged with highest contribution. H.P. Government Dental College and Hospital and regarding specialty, Pediatric and Preventive Dentistry contributed more research work towards PSNAM. Therefore, there is a growing demand and increasing trend in the application of PSNAM in cleft lip/palate infants.

In another Indian narrative review article, total 58 articles were studied. ^[5] These 58 articles were research work carried out pertaining to the effect of PSNAM on different aspects of cleft including effects of PSNAM on facial growth, maxillary arch, dentition and occlusion, its effects on nasal symmetry and nasolabial appearance and on speech. This narrative review concluded that PSNAM can be a useful adjunctive treatment modality for the management of cleft lip and palate patients. ^[5] This technique being a cost effective is more effective in reducing the number of future surgeries required in the treatment of cleft lip and palate infants. An Indian based a questionnaire-survey ^[6] evaluated knowledge, attitude and perception among dental graduate practitioners about PSNAM in cleft lip/palate infants. The results of this survey depicted that the majority of BDS practitioners were not aware of PSNAM regarding many of its aspects like the time duration required for PSNAM treatment, the person who performs PSNAM, the design of the appliance, and the infant’s age at which it is carried out. 91% of the practitioners showed interest in learning information about PSNAM and wished to attend workshops or courses about PSNAM. ^[6]

Researchers also evaluated the caregiver’s response and financial burden about NAM. Numerous publications revealed that there was an unnecessary emotional burden on the family members with negligible benefit from the NAM to the afflicted neonate. ^[3] In contrary to these other studies exhibited caregivers experienced better psychosocial outcomes like decrease in anxiety and depression, increased familial functioning and more positive co-operative responses. Therefore,

even with limited data and difficult analysis, it is been proved that NAM caregivers experienced positive benefits from NAM therapy and hence proved that NAM/PSNAM is a holistic approach in the management of cleft lip/palate neonates and does not impose a great burden as others believe.

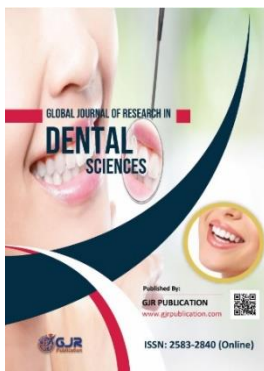
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