

Congenital Heart Diseases Associated With Cleft Lip and Palate and Its Impact on Surgical Treatment Planning of Patients With Cleft Lip and Palate—A Cross-Sectional Study

Gautam Rao, MDS¹ , Anil Desai, MDS²,
and Niranjana Kumar, MS, MCH³

The Cleft Palate-Craniofacial Journal
1-7

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DOI: 10.1177/1055665620943082
journals.sagepub.com/home/cpc



Abstract

Objectives: The aim of this study is to know the prevalence, type of congenital heart diseases (CHDs), and its association with cleft lip and/or palate and to know the impact of CHDs on surgical treatment planning of cleft lip and palate from a craniofacial hospital specializing in orofacial clefts, head and neck cancer, and trauma management.

Design: A total of 1381 patients with nonsyndromic cleft lip and palate were included in the study. This is a hospital-based retrospective case record analysis. The data were collected from clinical records of the patients which included clinical, chest radiographic and 2D echocardiographic findings. Total incidence of CHDs and its impact on treatment planning was evaluated using κ statistics and χ^2 test.

Results: There were 32 (2.32%) cleft lip and palate patients with CHDs. In 2 patients, cleft surgery was delayed by 6 to 9 months to allow the defect to decrease in size. Subacute bacterial endocarditis prophylaxis was administered in 7 patients before cleft surgery. Cardiac surgery was advised prior to cleft surgery in 3 patients. Sixteen patients with CHDs were not taken for cleft surgery considering the potential risk to the patient's life as they had multiple cardiac anomalies. There were no intraoperative and postoperative complications in these patients.

Conclusion: The results emphasize the association between clefting and CHD. The collected data suggest that there should be careful examination of children with cleft lip and palate for signs of heart disease. This could significantly reduce the morbidity/mortality of cleft lip and palate surgery making it more predictable and safer.

Keywords

cleft lip and/or palate, congenital heart disease, 2D echocardiographs, subacute bacterial endocarditis prophylaxis

¹ Oral and Maxillofacial Surgery at Subbaiah Institute of Dental Sciences and Hospital, Purle, Shimoga, Karnataka, India

² Oral and Maxillofacial Surgery, SDM College of Dental Sciences, Dharwad, India

³ Department of Plastic Surgery, SDM College of Medical Sciences and Hospital, Dharwad, India

Corresponding Author:

Gautam Rao, Department of Oral And Maxillofacial Surgery, Subbaiah Institute of Dental Sciences and Hospital, Purle, Shimoga, Karnataka, India.
Email: dr.gautamrao@gmail.com