SDM
College of
Dental Sciences
& Hospital

"CONGENITAL HEART DISEASE AND ITS ASSOCIATION WITH CLEFT LIP AND PALATE"

By

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ABSTRACT

Objectives:

To study prevalence, the type of congenital heart diseases and its association with cleft lip and/or palate and also to know the impact of congenital heart diseases on treatment planning.

Design:

A retrospective and prospective study of 1381 patients with cleft lip and palate reported to SDM craniofacial unit and research centre, from 2010 to 2014 were included in the study. Only nonsyndromic patients were included in the study.

Retrospectively data was collected from clinical records of the patients and prospective data was collected by clinically examining the patients, evaluating the chest radiograph, and evaluating 2DEcho findings and also other findings in the form of: Age, Sex, Weight, Clinical cardiac findings, Radiological cardiac findings, 2D Echo findings. Cleft patients were divided in to 4 groups for the convenience. Congenital heart disease was divided according to the involvement of septa, vasculature, valves and others. Based on this information's total prevalence and incidence of congenital heart diseases was calculated. Spectrum of congenital heart diseases and its impact on treatment planning was evaluated.

Results:

We had 2.32% (32/1381) of cleft lip and palate patients with CHDs. Clinical cardiac finding was 64% sensitive and 97.61% specific in evaluating CHD, with PPV of 72.73% and NPV of 96.46%. There was a strong correlation between Chest radiographic findings and 2DEcho findings.

ABSTRACT

CHDs were associated more with Cleft palate group followed by cleft lip group. Septal defects were the most common CHD, followed by Valvular defects

and defects in vasculature. In the presence of CHDs cleft surgery was delayed by 6 to 9 months for the defect to decrease in size. SABE prophylaxis was advised in 7 patients. Cardiac surgery was advised prior to cleft surgery in 3 patients. We had no intra operative and post operative complications in these patients.

Conclusion:

The results emphasize the association between clefting and CHD. The collected data suggests that there should be careful examination of children with cleft lip and palate for signs of heart disease. A greater awareness needs to be disseminated to all the health professionals involved in looking after children with clefts. Routine cardiac evaluation of cleft lip and palate patients revealed that 2.32% had associated cardiac disease of which most of the patients could be operated by altering the treatment plan while few needed primary cardiac intervention prior to cleft surgery. This significantly reduced the morbidity/ mortality of cleft surgery making it safer and predictable.