

Cleft Lip and/or Palate and Congenital Heart Disease: Are There Additional Predisposing Factors for the Occurrence of Acquired Cardiovascular Diseases?

Dear Editor,

Cleft lip and/or palate (CL/P) are common birth defects and they are associated with several factors that predispose to acquired cardiovascular diseases.¹⁻³ Moreover, individuals with both CL/P and congenital heart disease are relatively common frequent.⁴ However, there is not much information found in the literature.

In patients with cleft palate the direct communication between oral and nasal cavities provides the constant passage for microorganisms from the external environment. In addition, the frequent use of antibiotics due the high frequency of recurrent otitis media may predispose into the growth of bacteria.¹ Furthermore, children with CL/P have higher incidence of caries and periodontal disease when compared with children without CL/P, which contributes to an increase in the diversification and pathogenicity of the microbiological niches.²

Other important association is the respiratory difficulty in cases of Robin Sequence associated with cleft palate, it may require nasopharyngeal intubation or tracheostomy and/or nasogastric tube. Thus, on one hand it improves the breathing and nutritional management, on the other hand it provide additional access for entry of microorganisms.¹

Therefore, all these conditions may provide favourable milieus for the cultivation of bacterial endocarditis in children with CL/P and congenital heart disease.

It is worth mentioning that there is a concern with minimal weight gain to achieve the rehabilitative surgical procedures of CL/P often times based on the use of high calorie nutritional preparations. They are rich in sugars, through milk formulas. This can induce significant changes in microbiota,³ which may increase the risks for the occurrence of acquired cardiovascular disorders.⁵

Thereby, it becomes imminent for the need of more studies in the paediatric population with CL/P associated with congenital heart disease on the predisposing risk factors

for the occurrence of acquired cardiovascular diseases. So that, one can provide advice on rational use of antimicrobials.² New findings can also help to modify therapeutic protocols in order to contribute to the improvement of the quality of life of the patients.

Declaration of Interest

The author declares no conflict of interest.

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