Introduction

Cleft palate is a condition in which the two plates of the skull that form the hard palate(roof of the mouth) are not completely joined. The soft palate is in these cases cleft as well. In most cases, cleft lip is also present. Cleft palate occurs one in about 700 live birth worldwide **(*Wrongdiagnosis.com*.2007).**

A cleft palate has both aesthetic and functional implications for patients in their social interactions, particularly on their ability to communicate effectively and on their facial appearance with or without involvement of the lip. Midfacial skeletal growth may be affected by the surgical repair of the palate. The treatment plan focuses on two areas: speech development and facial growth ***(Parven K,2006).***

The list of surgical techniques used in palatal cleft closure is extensive. The repairs differ depending upon whether the cleft is an isolated cleft palate or part of a unilateral or bilateral cleft lip and palate. The 3 main categories include (1) simple palatal closure, (2) palatal; closure with palatal lengthening, and (3) either of the first two techniques with direct palatal muscle reapproximation ***(Parven K,2006)***.

Bioglass is an osteoconductive resorbable material which has the most potent effect on bone cell function. The surface of the materials is activated and covered with calcium phosphate layer similar to the mineral phase of bone. Bioglass particles remodel in the presence of osteogenic precursor cells,

providing a scaffold for new bone growth and holding dimensions until host bone takes over ***(Kim, C.et al,1989).***

Bioactive glass has been used in medical practice since 1984. Various forms of this material have been used in a variety of clinical applications. [4]

It has been used in fractures, periodontal defects, cystic lesions, apicotomy lesions, peri and endo lesions, filling of extraction sites, perforations, ridge maintenance procedures and in oro-antral fistulas ***(Shapoff, C.A et al.,1997).***

Bioactive glass was tested in the repair of experimental alveolar defects in rabbits. ***(Puumanen K, Kellomaki M, et al. 2005).***