COMPARITIVE EVALUATION OF THE WATER SORPTION AND TEAR STRENGTH OF SILICONE ELASTOMERS UPON ADDITION OF INTRINSIC PIGMENTS.

By

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Dissertation Submitted to the
Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore

In partial fulfillment
of the requirements for the degree of

MASTER OF DENTAL SURGERY (M.D.S.)

In

PROSTHODONTICS AND IMPLANTOLOGY

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2007-2010

ABSTRACT

Background and objectives: Maxillofacial prosthesis undergoes various changes in a due course of time may be due to the colour fading or ill fitting borders for which it needs to be replaced. This study was attempted to determine the effect of water sorption and tear strength of 2 different silicones available on addition of intrinsic pigments.

Methodology: In this study the water sorption and tear strength was evaluated on the addition of intrinsic pigments in 2 different commercially available silicones. Forty test specimens were fabricated using biomed and cosmesil silicone. These were 2 groups which were sub divided into 2 groups. One being the control group and the other is the variation group. The sample made was an un nicked 90° angle on one side and with tab ends. The variation group was made by the addition of intrinsic pigments and keeping the samples in water for 30 days. Then the weights were noted and the samples were subjected to tear strength evaluation. The values obtained were subjected to student T test.

Results: The statistical value of cosmesil showed the significant results p value (0.0187), the cosmesil control and biomed control also showed statistical significance p value (0.0000).water sorption of both biomed and cosmesil showed significant p values (0.0000)

Keywords: maxillofacial prosthesis, silicones, intrinsic pigments, tear strength, water sorption