SDM
College of
Dental Sciences
& Hospital

"A COMPARATIVE EVALUATION OF CLINICAL PERFORMANCE OF COMPOSITE RESIN AND CERAMIC VENEER: AN INVIVO STUDY"

By

DR. HARSHA B.S

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

In

PROSTHODONTICS

Under the guidance of

DR. LEKHA K

PROFESSOR and HOD

DEPARTMENT OF PROSTHODONTICS

S.D.M. COLLEGE OF DENTAL SCIENCES & HOSPITAL,

DHARWAD

2014-2017

ABSTRACT

Background and Objectives:

In restorative dentistry, laminate veneer restorations are considered as minimally invasive treatment options. Laminate veneers, made directly with resin composites or indirectly with ceramics, are indicated to restore hypoplastic enamel and/or dentin, fractured, malformed, malpositioned or discolored teeth since more than 20 years. The present study was conducted to evaluate and compare the clinical performance of composite veneer and ceramic veneer over a period of 1 year.

Materials and method: This study was conducted with 10 patients reporting to SDM College of Dental sciences, Dharwad with complaints relevant to clinical indications for veneer therapy. Subjects for the study were divided into two groups namely Group 1 (Composite) and Group 2 (Porcelain).In Group 1 tooth preparation was done to receive composite veneers and Group 2, tooth preparation was done to receive porcelain laminate veneers. Tooth preparation was carried our as per the standard procedure. Direct composite material Filtek was used in composite group and veneers were fabricated by direct layering technique. And e max press ceramic material was used in porcelain group, and veneers were cemented as per manufacturer's instruction. These veneers were evaluated at 3, 6 and 12 month intervals by calibrated observers using modified USPHS criteria. The values obtained were subjected to statistical analysis.

Results: The present study showed a statistically significant difference between composite and porcelain veneers in terms of color match, adaptation and surface roughness. Among marginal discoloration, fracture of restoration and post-operative sensitivity there was no statistically significant difference between composite and porcelain veneers.

Conclusion: From this study it can be concluded that, Porcelain laminate veneers show better clinical performance over direct composite veneers in relation to color match, adaptation and surface roughness.

Keywords- Direct composite veneer, Porcelain laminate veneer, Adaptation, Color match, Marginal discoloration, Surface roughness, Fracture of restoration, Post-operative sensitivity.