

RESTORATION OF DENTAL FACIAL ESTHETICS

Pirte Adriana *, Venter Alina *

*University of Oradea, Faculty of Medicine and Pharmacy Oradea, Romania,
e-mail: pirteadriana@gmail.com

Abstract

In the Middle Ages the interest in oral hygiene, especially for a proper cosmetic dentistry, was totally absent. Only in the eighteenth century, dentistry was recognized as a separate subject, with particular specializations. The leader who supported the dentistry' modernizing and promoting was Pierre Fauchard (1678-1761, France). His success from the aesthetic point of view of the final restoration depends, of course, on the skills of each practitioner, since the shape and contour of the dental restoration are equally important as choosing the colour. Composite resins seem to be easy to use, but to ensure their longevity and aesthetic success they require a much stricter rigor than most other materials dedicated for direct restorations purposes. If the operator has the skill and time to use them properly, they can provide a great, long lasting teeth aesthetics.

Key words: dental restorations, cosmetic dentistry, composite resins, patients

INTRODUCTION

Restoring dental surfaces visible during physiological functions of the mouth is one of the most interesting challenges faced by a surgical team. Increased demand for cosmetic restorations in visible areas is more than obvious nowadays. Although one has not yet discovered the ideal material, one often uses with varying degrees of success, three types of materials as follows: composite resin, glass-ionomers and ceramics.

MATERIAL AND METHOD

This study was conducted on a total number of 27 patients, aged between 17 and 47 years old. These patients had been applied a total number of 71 cosmetic restorations using two composite resins and they were subsequently clinically monitored.

RESULTS AND DISSCUSIONS

In this patients pool included in the survey one applied a total of 71 fillings (see Table No. 1), of which 12 were in case of women and the remaining 15 were for men (see Table no. 2).

Table No. 1

Amount of dental restorations in the surveyed sample

No. of patients examined	Total amount of dental restorations made
27	71

Table No. 2

Distribution by gender

Sex	No. of patients examined	% of patients examined
F	12	44
M	15	56

Injuries by groups of teeth were as follows: 30 on molars, 22 on premolars, and the remaining 19 were on the front teeth (see Table No. 3 bellow).

Table No.3

Distribution per teeth groups

Frontal teeth	Molars	Premolars
19	30	22

There were also conducted two direct veneering and one recorded four cases of fracture of incisal angle occurred because of accidental injury.

In all cases treated both biological and also the physiognomic criteria were criteria were taken into account, and one intended to obtain lasting coronal reconstructions meant to restore as well as possible the tooth morphology.(El-Mowafy O.M et al 2002, Burke F.J.T et al 2001)In order to

reach to the clinical success of restorations made of light curing units, it is very important to understand and apply correctly the adhesive techniques, and to rigorously observe the information provided by the manufacturer. Both materials used (Herculite[®] XRV, TetricEvo Ceram[®]) have proven superior qualities. In about 10% of cases light curing units fillings were applied in cavities that had been previously blocked with amalgam.(Silva J.et al 2007) Need for change was required in most cases by shortcomings (secondary caries, marginal caries, lack of finish, overflowing fillings, fracture of a filling's part or of the coronary walls, etc.), or by explicit request of the patients who invoked aesthetic reasons. In this study, few of the results of the dental works performed have been monitored for a period longer than 6 months. Of the 71 restorations performed, only 49 could be evaluated after six months and after one year after their numbers has dropped to 27. All patients had given their consent for being included in the survey and they were explained from the very beginning that this will require further medical examinations sessions. However it seems that the lack of a painful symptomatology or the absence of any physiognomic problems was enough to prevent them to make teeth health control (Fig No. 1). This brings us to the conclusion that health education measures are needed to raise public awareness on the importance of dental prophylaxis, on the need for treatment and medical examination sessions.

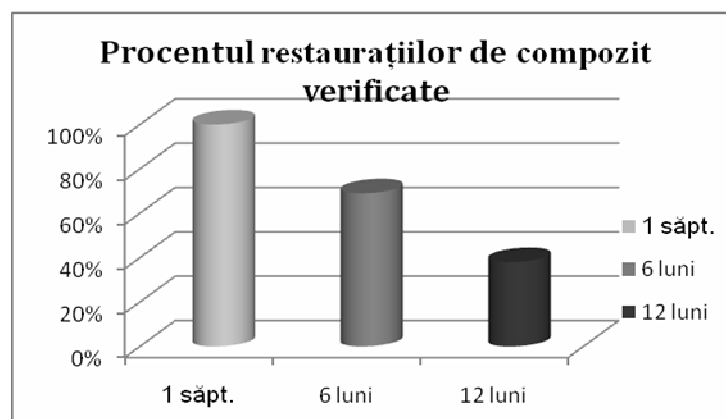


Fig.1 The rate of patients who made periodic medical check

This study's limitations were imposed, on one hand by the failure of patients to make medical check so not all the fillings could be assessed, and on the other hand by the fact that the timeframe was still too short to appreciate with some degree of certainty the clinical success. Worldwide few studies overcome 5 years of clinical evaluation. Regarding our study, the best physiognomic outcomes were recorded by using Tetric[®]Evo Ceram

material. Also, better results were obtained in women than in men due to increased attention they pay to aesthetic side as well as in case of patients with very good oral hygiene, and who have made regular medical checking. All this time, only two marginal secondary caries were identified (Fig. No. 2) Most of the marginal staining of fillings occurred in the case of smokers and inveterate coffee drinkers Shortcomings occurred in the occlusal shape and in the structure of fillings surface are related, in most cases, to the fillings slightly circumscribed. However the most had a smooth surface. Regarding the marginal closure, this was good in most cases.

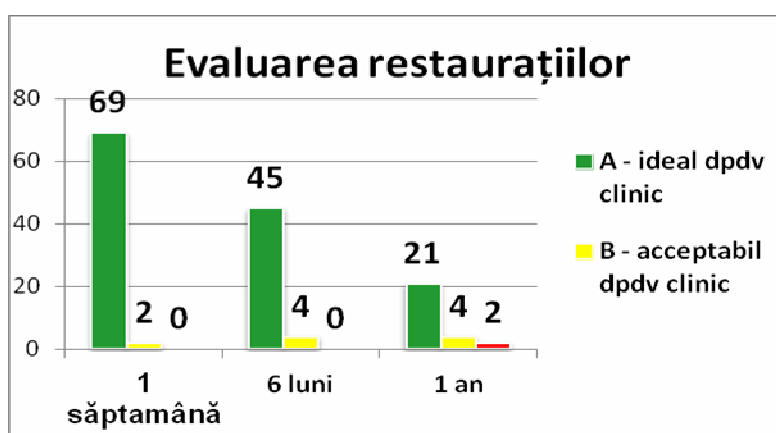


Fig . 2 - Patients caseworks

Out of the total 71 restorations checked after a week, 2 cases showed postoperative sensitivity and these were cases in which coronary destruction was of great extent. Out of the 49 restorations checked after 6 months, 4 restorations showed marginal stains caused by smoking and drinking coffee; stains get worse by the next checking conducted after one year. Out of the total 27 restorations checked after one year, only 2 cases showed secondary caries. In conclusion one can state that most of the dental works have been clinically successful.(Robertson TM. et al 2006, Spiral B. et al 2010)

CONCLUSIONS

The best results have been obtained for small and medium cavities. The limitations of this study are, however, the relatively short period where we conducted our research, and the fact that not all the dental restorations could be assessed within this timeframe. The need to decrease the incidence of dental caries, questions arising sharply regarding a certain toxicity of metals, as well as the growing interest of patients for cosmetic restorations in the case of posterior teeth too, have both led researchers and practitioners to conduct or to use materials and techniques meeting these requirements. Of paramount importance for long-term success is the understanding and application of adhesive techniques and ensuring proper marginal closing. Mechanical properties of composite resins have been greatly improved so that they meet both the requirements of physiognomic nature but also the mechanical ones due to their resistance to compression, chewing fatigue and abrasion, and thus they can be successfully used on the side teeth. The medical diagnosis and the long-term clinical success rate can be both improved by: a strict compliance with the manufacturer's indications, the correct processing and finishing of the dental restorations, education of patients in order to maintain a proper oral hygiene, preventive measures for professional removal of dental plaque and tartar.

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