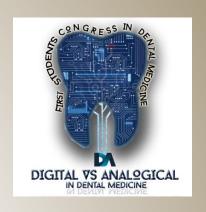


### Faculty of Medical Sciences, Dental Medicine University "Goce Delcev" – Stip



### SMILE DESIGN WITH METAL FREE CERAMICS

Author: Stefanija Stojanova

Mentor: D-r Darko Kocovski

Co-author: Stefani Joveva

Co-mentor: Ass. Prof. d-r Katerina Zlatanovska

Zirconium oxide is currently one of the best material for making a metal free ceramics dental prosthesis. More studies show the exceptional stability and durability of zirconioum metal-free ceramics works. Transparency and reflection of light is almost identical to that of natural teeth. Exceptional mechanical, chemical and aesthetic properties are the reason for the widespread use of zirconium in aesthetic dentistry today.

### USE OF ZIRCONIA IN DENTISTRY

- Zirconia-Based Dental Posts
- Zirconia-Based Crown and Bridge
- Zirconia-Based Implant Abutments
- \*Zirconia-Based Esthetic Orthodontic Brackets

### **ADVANTAGES**

- DURABILITY
- APPEARANCE
- NON-ALLERGIC
- LESS TOOTH STRUCTURE HAS TO BE REMOVED

Raigrodski AJ. Contemporary materials and technologies for all ceramic fixed partial dentures: a review of the literature. J Prosthet Dent. 2004;92:557-62

### **DISADVANTAGES**

- •IT IS HARD TO NOTICE A DECAY UNDER THE CROWN
- \*REASONABLE PRICE

Raigrodski AJ. Contemporary materials and technologies for all ceramic fixed partial dentures: a review of the literature. J Prosthet Dent. 2004;92:557-62

## CASE ONE

### Anamnesis

- 32 YEARS OLD
- FEMALE
- SMOKER
- NO HISTORY WITH ANY SYSTEMIC DISEASE OR ALLERGY

Chief complain

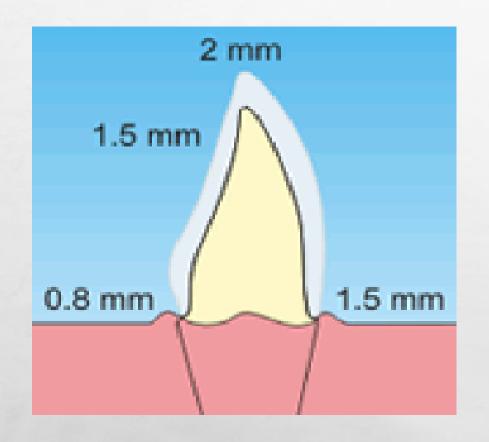
NOT HAPPY WITH HER SMILE AS IT SHOWS DISSATISFACTION WITH SHAPE AND SIZE OF THE ANTERIOR TEETH, DISCOLORED AND ROTATED TEETH

#### **INTRA-ORAL EXSAMINATION**

- DISCOLORED TEETH 11 AND 12
- LOW SMILE LINE
- DISCOLORED TOOTH FILLINGS
- CARIES ON SOME TEETH



### THE TEETH WERE PREPARED FOR METAL FREE CERAMICS CROWN



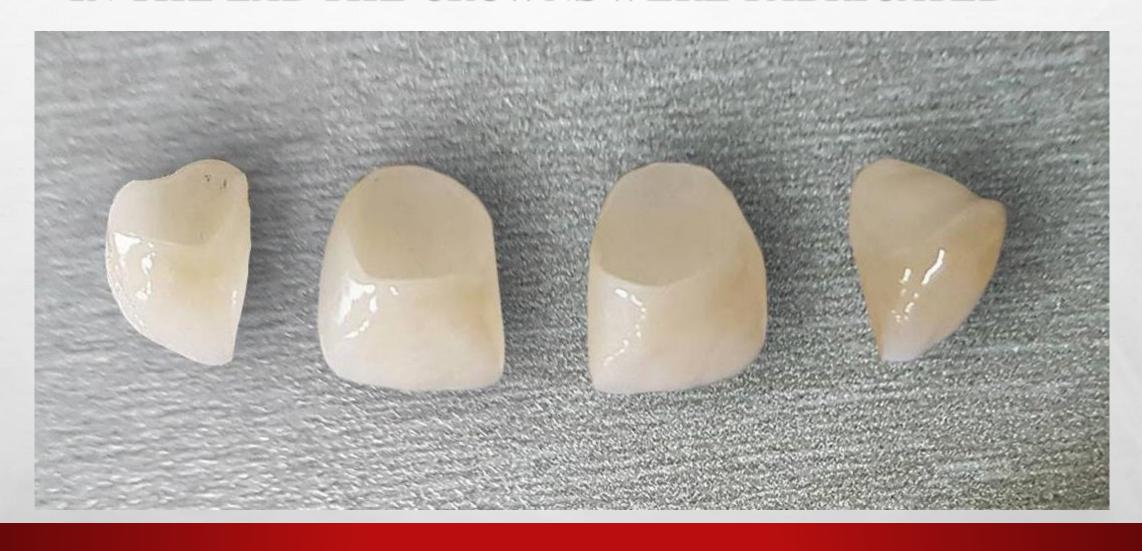




### TWO-STEPS IMPRESSION



### IN THE LAB THE CROWNS WERE FABRICATED



# AFTER TRY-IN THE CROWNS WERE CEMENTED WITH SELF-ADHESIVE CEMENT





### **BEFORE**

### **AFTER**





## CASE TWO

### Anamnesis

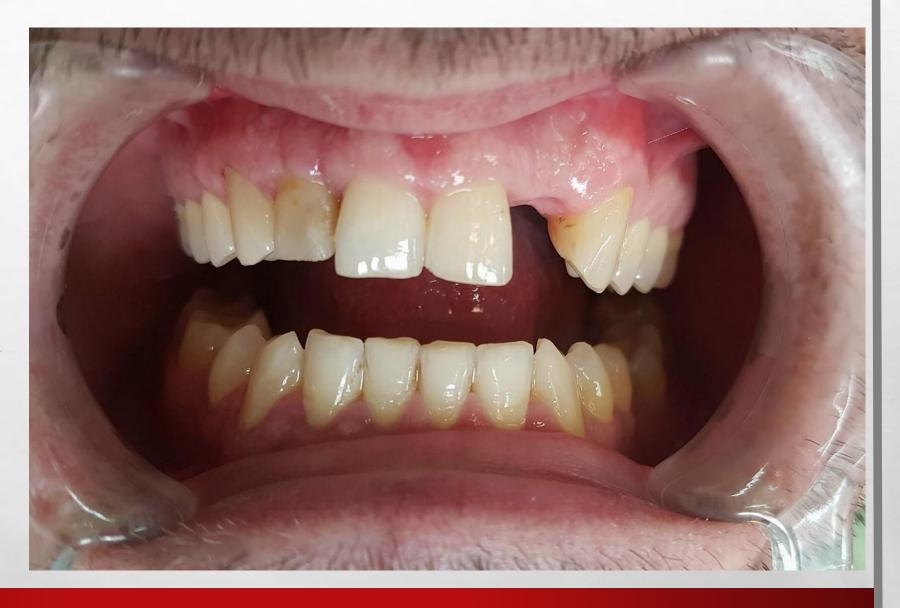
Chief complain

- 25 YEARS OLD
- MALE
- NONSMOKER
- NO HISTORY WITH ANY SYSTEMIC DISEASE OR ALLERGY

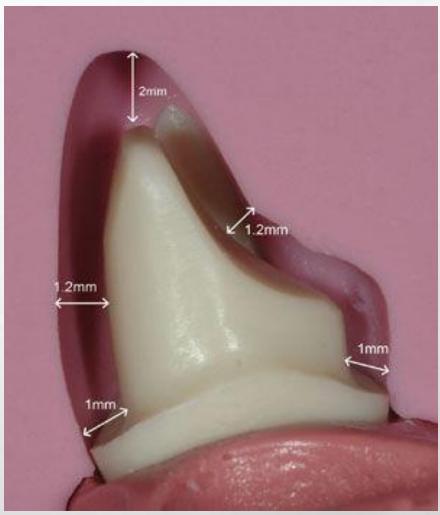
NOT HAPPY WITH HIS SMILE AS IT SHOWS
MISSING TOOTH, DISCOLORED TOOTH AND
DISSATISFACTION WITH SHAPE AND SIZE
OF THE ANTERIOR TEETH

#### INTRA-ORAL EXSAMINATION

- MISSING TOOTH 22
- DISCOLORED TOOTH 12
- LOW SMILE LINE
- CARIES ON SOME TEETH
- DISCOLORED TOOTH FILLINGS









### TWO-STEP IMPRESSION

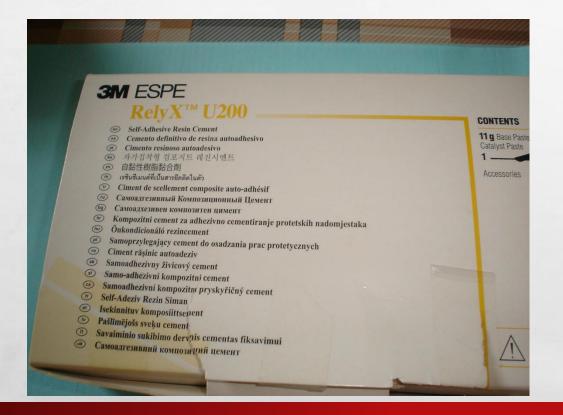




### IN THE LAB THE BRIDGE WERE FABRICATED



## THE BRIDGE WERE CEMENTED







### **BEFORE**

### **AFTER**





## CASE THREE

Anamnesis

Chief complain

- 30 YEARS OLD
- MALE
- SMOKER
- NO HISTORY WITH ANY SYSTEMIC DISEASE OR ALLERGY

NOT HAPPY WITH HIS SMILE AS IT SHOWS
MISSING TEETH, DISCOLORED TOOTH
FILLINGS AND DISSATISFACTION WITH
SHAPE AND SIZE OF THE ANTERIOR TEETH

### **BEFORE**

### AFTER







### **CONCLUSION**

High performances and properties such as biocompatibility, translucency, ideal durability and toughness and aesthetics make it possible for the zirconia to be the first choice for designing a smile of dreams.

### THANK YOU FOR YOUR ATTENTION



