BOREA
THE SHADE COMPANY

CLINICAL CASE

Dr Rodolphe Martin
France

Using the Rayplicker for a whitening case.

RAYPLICKER
HANDY

Introduction

Dr. Rodolphe Martin presents a case of whitening in which the use of the Rayplicker makes it possible to make visible the evolution and the result of the treatment.

Whitening is a widespread act whether it is performed for cosmetic or medical reasons. Even if the expectations are varied (pure aesthetics or proven complex) the patient wishes to see the effects of the treatment with a significant before/after. The Rayplicker has many faculties including that of analyzing the color and its evolution. The processed images provide access to accurate reports that can help the practitioner evaluate the treatment. (Fig. 01)

This greatly contributes to the quality of the exchange with the patient, one of the objectives of the Rayplicker solution.

As for the choice of treatment, Dr. Rodolphe Martin opted for the Opalescence Ultradent PF whitening gel (potassium nitrate and fluoride) at 16%. A gel formulated to maximize patient comfort. The viscous and thick gel does not run on the soft tissues and thus guarantees that the dental tray stays in place.

The rayplicker makes it possible to evaluate the treatment. The integration of digital technology in cosmetic dentistry is becoming essential both in the transmission of information to other professionals and for the enhancement of the acts performed by the practitioner.

Let's see what concrete contributions the Rayplicker makes in the case of a whitening.

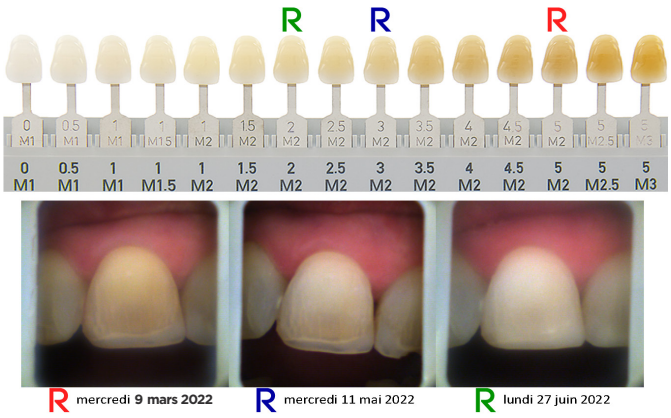

FIG.01: ILLUSTRATION OF A WHITENING REPORT EXTRACTED FROM THE RAYPLICKER VISION SOFTWARE.

1 | CLINICAL CASE - WHITENING

The patient underwent whitening treatment supplemented by placement of crowns on implants.

2 | DESCRIPTION OF THE PROCESS

The treatment requires the wearing of dental trays (at night - for 6 hours minimum) made to measure with small reservoirs to place the gel in. Opalescence whitening gels contain an active lightening ingredient – carbamide peroxide. Peroxide-based gels break down into molecules of water, oxygen, and reactive oxygen. These reactive oxygen molecules treat both the enamel and the dentin, acting by oxidizing the bonds of the molecules at the origin of the dyschromias. The modification of the molecules causing the stains leads to the lightening of the tooth. The patient benefits from homogeneous whitening.

3 | PHASE 1

First shade taking on 11 (in March) in order to have a reference base to then quantify the evolution of the patient's shade. (Fig. 02)

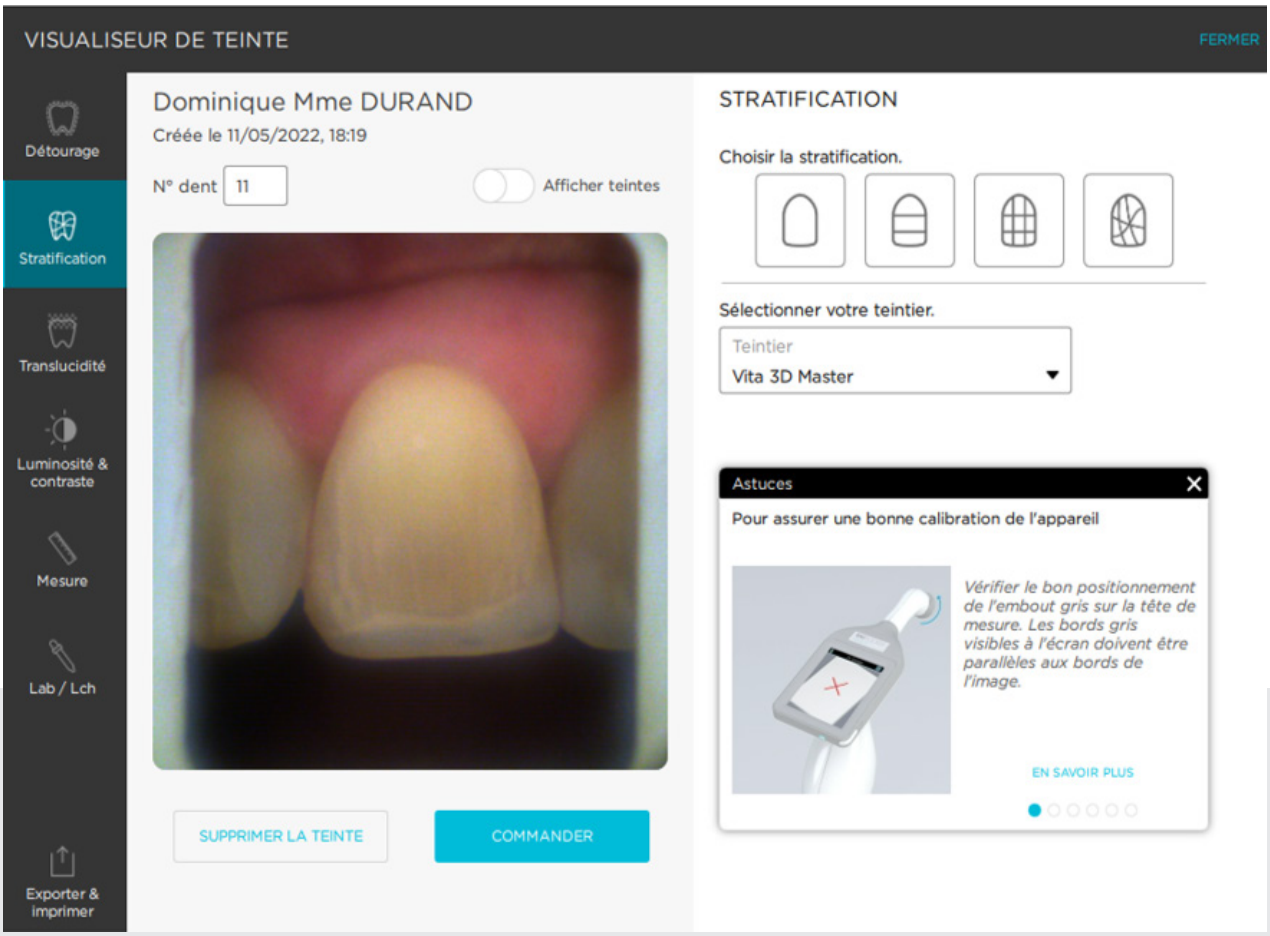

FIG.02: SHADE TAKING MADE WITH THE RAYPLICKER - VISUALISATION FROM THE RAYPLICKER VISION SOFTWARE.

4 | PHASE 2

Reassessment at 2 months with a new shade taken with the Rayplicker Handy and follow-up visit of the patient. (Fig. 03)

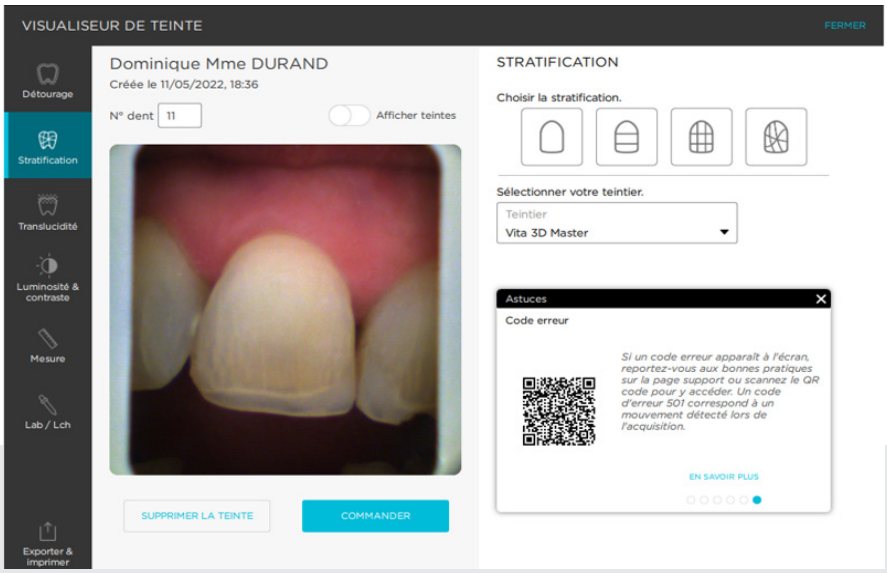

FIG. 03: SECOND SHADE TAKING WITH THE RAYPLICKER SPECTROPHOTOMETER.

5 | PHASE 3 END OF TREATMENT

Last shade taking after a 3-month treatment, crowns are also placed on implants. (Fig. 04)

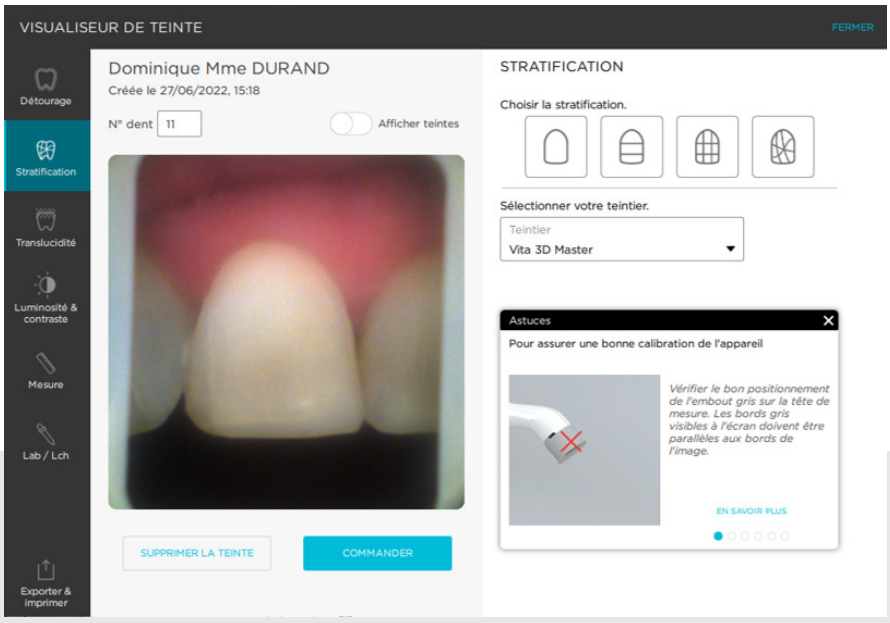

FIG. 04: END OF ULTRADENT OPALESCENCE TREATMENT. LAST SHADE TAKING WITH THE RAYPLICKER AND VISUALIZATION ON THE SOFTWARE.

6 | RESULTS & REPORTS

The result is quite convincing, as can be seen below with the “bleaching report” (Fig. 05) as well as the “shade comparator report” (Fig. 06), extracted from the Rayplicker Vision software. The reference shade guide is the Vita Bleachguide 3D Master.

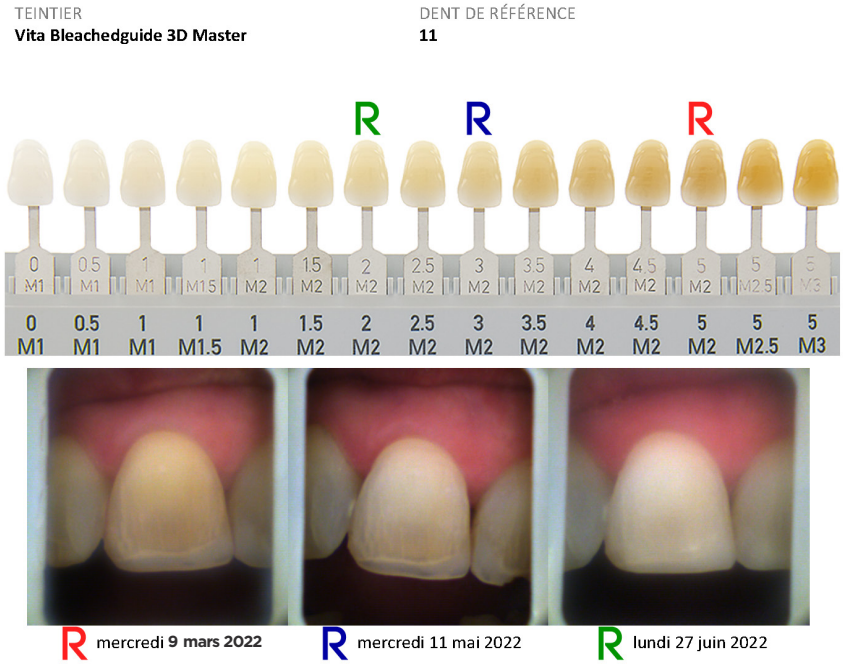

FIG. 05: BLEACHING REPORT, WITH THE VITA 3D MASTER SHADE GUIDE AS A REFERENCE.

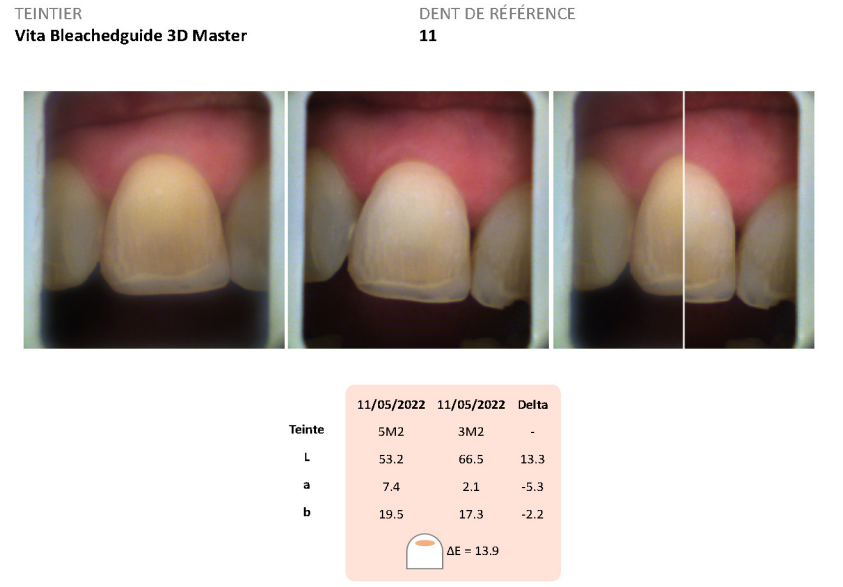

FIG. 06: SHADE COMPARATOR REPORT ON L*A*B* VALUES BETWEEN MARCH AND MAY.

TEINTIER
Vita Bleachedguide 3D Master

DENT DE RÉFÉRENCE
11

	11/05/2022	27/06/2022	Delta
Teinte	3M2	2M2	-
L	66.5	74.0	7.5
a	2.1	1.3	-0.8
b	17.3	15.6	-1.7

ΔE = 7.6

FIG. 06: EVOLUTION OF THE COLOR BETWEEN THE MONTHS OF MAY AND JUNE.

TEINTIER
Vita Bleachedguide 3D Master

DENT DE RÉFÉRENCE
11

	11/05/2022	27/06/2022	Delta
Teinte	5M2	2M2	-
L	53.2	74.0	20.8
a	7.4	1.3	-6.1
b	19.5	15.6	-3.9

ΔE = 21.3

FIG. 06: EVOLUTION OF THE SHADE ON THE L*A*B* VALUES BETWEEN MARCH AND JUNE.

5 | CONCLUSION

The client was able to follow the evolution of the shade of her teeth thanks to the various images taken using the Rayplicker and its visualization software. A precise analysis could be extracted, thus making it possible to precisely quantify the change in hue. Dr. Rodolphe Martin was able to easily show the evolution of the color and therefore the relevance of the choice of treatment.

6 | SOURCES

This document and all content is the responsibility of its author.

ABOUT THE AUTHOR

Dr. Rodolphe Martin

Doctor of dental surgery.

Dr Rodolphe Martin
France

- **Graduated from the Faculty of Dental Surgery of Nantes (44)**
- **General practitioner, in private practice in Lodeve (44) since 2003**
- **Referent for CEREC system Dentsply Sirona**
- **CADCAM trainer Henry Schein**
- **Practice of guided surgery - Camlog and Msoft system**
- **Co-creator and President of *I love CFAO***

In search of ever more effective digital ergonomics, Dr. Martin has been learning and sharing his experience for more than 10 years with all specialists in optical impressions and the CEREC system.

It is with a great complicity with his prosthetist that Dr. Martin has tried in recent years to develop a real practice-laboratory synergy.

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