CLINICAL

Direct and indirect composite

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The treatment

For any aesthetic treatment, the practitioner should encourage patients to express their motivations and desires. The dentist must devote time to listen, understand and offer support to the patient. After a thorough analysis of the existing problem, including clinical examination, X-rays and photos, a treatment plan should be proposed to the patient, who then may accept it or not. In case of refusal, it is important to understand the reasons and, if possible, to make another proposal in accordance with the patient's expectations as long as they are realistic; the patient has to understand and accept the limits of the second proposal. When agreement is reached, study models are needed and through the production of a diagnostic wax-up, the dentist and laboratory can show the expected outcome to the patient.

The case



¹ Gregory Camaleonte Private Practice, Marseille, France Figure 1: A young female patient visited the practice to improve her smile. She asked for a fast treatment because she was getting married four months later. Her desire was to have white and aligned front teeth.



Figure 2: X-rays of the deciduous teeth showed important root resorption. At this point, the patient was informed that, in order to obtain a long-lasting result, teeth URc and ULc should be extracted, space would be created between the canines and central incisors using orthodontic treatment and then implants would be used to replace UR2 and UL2 after bleaching. The patient refused this proposal and reminded us of the need for a fast solution. At this point there is the option to either stop the treatment or to find an alternative solution. It was decided to propose rebuilding the teeth with indirect composite crowns on URc and ULc and to make direct restorations to transform the canines in lateral incisors. It was explained to the patient that this treatment could accelerate the root resorption of the deciduous teeth and the patient accepted this risk.

Figure 3: First we made study models and send them to the laboratory (DT Gilles Philip laboratory). Digital design was used to guide the production of the wax-up.



Figure 4: The lab closed the spaces between canines and central incisors and transformed the deciduous teeth into permanent canines. Notice in this case that the gum level of the UR3 and UL3 is lower than the gum level of the teeth UL1 and UR1, this can be resolved in the final integration of the new smile.



Figure 5: Before any intervention, the patient has to validate the proposal made in the laboratory. To precisely transfer the sculpture into the mouth of the patient we used silicone materials (Honigum Putty and Light). With a #15 blade, the unwanted parts of the silicone stent were removed to obtain a very clean and precise mock up. At this point the patient can appreciate the final outcome and validates the treatment plan.



Figure 6: The first step of the treatment is bleaching with White Dental Beauty - 6% hydrogen peroxide for 14 days. This picture shows the initial colour of the teeth and the strong saturation of the canines.



Figure 7: After one-week of treatment (left) and final colour (right). After bleaching, a silicone impression is made and the laboratory builds composite crowns on the deciduous teeth. The patient is reminded that because of the occlusion (even if we are able to avoid occlusal contacts in static occlusion), the root resorption of the URc and ULc will certainly be accelerated. The patient is still motivated and tells us she understands the risks.

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Figure 8: The composite crowns (Gilles Philip lab) were cemented with individual rubber dam. After excesses removal, rubber dam is used again from teeth UR4 to UL4 to transform UR3 and UL3 into lateral incisors using direct composites.



Figure 9: Final result after polishing procedure, before rubber dam removal



Figure 10: Direct post-op situation, immediately after rubber dam removal



Figure 11: The outcome one month later is satisfactory



Figure 12: Six months later, the patient is happy and the deciduous teeth show no mobility.

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In conclusion

Before starting any treatment it is important to listen carefully to the patient's expectations. If we have to make realistic compromises, the patient has to understand and accept the limits of the new treatment plan. In the case presented here, the patient is aware the outcome won't last for many years. Despite this, the patient is grateful and returns to the clinic every six months for the situation to be assessed.

