Minimally invasive smile makeover using Lumineers

Charlie Attariani gives his patient her dream smile in time for her wedding day, only a few months away

Dr Charlie Attariani completed his European DMD license at Semmelweis University in Budapest, Hungary in 2013. Following graduation, Dr Attariani has consistently been striving to sharpen his skills and enhance his expertise by participating in continuing education courses within both dental and facial cosmetics.

In 2017, Dr Attariani together with his wife/business partner Dr Golnar Hassirian set up their own dental surgery -- Ego Dental Clinic in central London and has since received multiple awards, including Best New Practice 2018 - National, Best Private Dental Clinic 2019 - Central London and Practice of the Year - National 2020.

Dr Attariani's philosophy is to tailor minimally invasive treatment plans allowing for complete rejuvenation and easy maintenance. He takes the utmost pride in his work, paying attention to every detail. Dr Attariani uses the most up-to-date technology to provide the latest state-of-the-art dental techniques. It is his priority to provide patients with the most minimally invasive procedure, whilst still maintaining a predictable and beautiful result.

Introduction

A 30-year-old woman came to Ego Cosmetics with her chief complaint being the unaesthetic appearance of her teeth.

They had been bothering her all her life and she was now ready to make a drastic change with her wedding being only a few months away.

Like every bride, she wanted to feel her best on the day of her wedding and she felt that by enhancing her smile she would have more confidence.

She reported that she had been to a lot of consultations over the years. However, she had not committed to any treatment because she wanted to avoid any invasive dentistry procedures.



Figure 1: Before and after final restoration



Figure 2: Before treatment - retracted



Figure 3: Diagnostic wax up and lower tooth whitening (OMNI White)

Chief complaint

Brown and white mottled spots present on the teeth since eruption.

Diagnosis

Fluorosis - the staining was widespread but mainly visible on upper anterior teeth.

Clinical presentation

A clinical examination was carried out for extra and intra oral tissues. X-rays and digital photos were taken and scans were made using Itero.

The patient's natural smile was nice and wide extending into and filling the buccal corridors on both sides. The teeth were nicely aligned.

There was widespread fluorosis staining on the teeth caused by disturbances in enamel mineralisation resulting in a poor aesthetic appearance.

There was no pain from any of the lesions and no caries.

Bite analysis and wear patterns were diagnosed with the help of the Itero scanner.

Upper teeth: white and brown lesions presented - covering up to a third of the surface of the teeth.

The patient had UR2 re-root canal treated a few years ago, leaving it discoloured and darker than the other teeth.

This case was extra challenging as the staining was significant. However, we managed to achieve an excellent clinical result with thorough treatment planning and proper use of techniques for fitting and cementation.







Figure 4: Retracted before Figure 5: Retracted after

Figure 6: Root canal treated lateral incisor

Lower teeth: nicely aligned teeth - with only LR2 showing white spots (mainly visible when smiling).

The following treatment options were discussed in detail with the patient:

- No treatment since the patient's chief complaint was the brownish and white spots on her teeth, no treatment would have left the patient dissatisfied
- Composite bonding
- Composite veneers
- Lumineers (contouring explained and risks)
- Porcelain veneers.

All treatment options included tooth whitening prior to treatment.

After considering all the risks and benefits, the patient decided to proceed with 10 Lumineers on her upper anterior teeth.

This treatment option allowed for a beautiful, permanent aesthetic result with the least tooth structure removal.

This satisfied her need for a minimally invasive treatment while still being able to give full coverage to block out the stains. Tooth whitening was to be done for the lower teeth

LR2 - white spot lesion: ICON introduced and added to the treatment plan.

The patient also requested to have her tooth anatomy slightly more rounded.

Treatment



Figure 7: Smile before treatment



Figure 8: Smile after treatment



Figure 9. Smile picture taken at the review appointment

After a hygienist appointment, new Itero scans were made for digital ordering of diagnostic wax ups from Denmat Los Angeles, California. Then the scan was sent to Omniwhite lab for special bleaching trays to be made.

Two weeks of external bleaching carried out using 16% carbamide peroxide whitening gel by Omniwhite with their special remin gel.

Walking try-in of the waxed up veneers was carried out using DMG Luxatemp plus - shade: bleach white.

Following this we:

- Discussed the shape of the teeth; patient was very happy
- Digital photos and videos were taken with the patient's phone and she was sent home to think about it and get used to the new shape of the teeth before any permanent treatment was performed. Importantly - two videos were taken - one with sound and one without
- 48 hours later the client came back for a review appointment and asked for a minor adjustment on the central incisors. She wanted a rounder shape and smoother incisal edges with the intention of a more feminine result
- Patient approved treatment plan!

The results of the tooth whitening were very successful and shade B1 was achieved.

Each individual tooth was minimally contoured and was carried out without any local anesthetic.

Shade B1 was selected by the client and stump shades taken. A digital photo and new scan was made and sent to Denmat lab in the USA for production of the Lumineers.

Case of the week - Aesthetic Dentistry



Patient was provided with a temporary made from the diagnostic model and returned two weeks later for fitting.

The Lumineers were tested and cemented with Denmat's own special luting cement kit.

Review of treatment and comments

Two-week and four-week review appointment carried out.

The patient was extremely happy with the outcome of the treatment. She was especially impressed with how quick we managed to achieve the result she wanted after many years.

Oral hygiene instructions were given and whitening protocols and maintenance were advised.

Lumineers are a very minimally invasive type of veneer restoration.

But very small adjustments are still needed to the natural tooth structure.

However, the contouring required during preparation in comparison to conventional veneers is very minimal and because they are thin, special care is also required during the fitting stage.

The aim is to always keep the preparation part to an absolute minimum to ensure long-term health and longevity of the natural teeth, as well as achieving an aesthetically beautiful result.

The case selection and whom to offer this treatment to is the key for a successful outcome with Lumineers.

Proper and clear aftercare instructions are also a vital part of a long-lasting result.

This case was particularly challenging because the staining was significant. However, we managed to achieve an excellent clinical result with thorough treatment planning and proper use of techniques for fitting and cementation.

In conclusion, with meticulous and proper treatment planning, there is always a possibility of creating beautiful smile makeovers using a 'minimally invasive' dentistry approach. Hence we can keep the long-term health and longevity of the teeth, whilst still creating the 'perfect smile'.

