



LONDON DENTAL
SPECIALISTS

CASE OF THE MONTH

ORTHODONTIC / IMPLANT CASE



*How to Manage
malpositioned
lower incisors.*



Introduction

Welcome to our regular case presentations to colleagues. We hope you find this useful and we welcome all your questions. In this edition we present the restorative management of a 60-year-old patient lady with malpositioned lower incisors.

We selected this case for the following reasons:

the local orthodontist had declined to treat her.

1. Localised Severe Chronic Periodontitis is very common and a general understanding of the management of these patients is extremely useful in general practice.
2. Restorative and orthodontic options for the management of this case are equally valid.
3. The aesthetic issue (which is the patient's concern) is caused by the periodontitis and having a specialist orthodontist and specialist periodontist under the same roof makes treatment planning of these cases more efficient.
4. We would like to remind you that Ope (specialist periodontist), Neha (specialist endodontist) and Gui (specialist orthodontist) are here to use our expertise to support you and your patients.

The patient was referred to me by a member of my excellent network of general dentists because of her dissatisfaction with her "vampire teeth". She has been a long-term patient of my colleague who referred her to see me because of the patients wishes

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Dr Ope Sodeinde
BDS MFDS RCS(Ed) MSc(RestDent)
MClinDent(Perio) MPerioRCS(Ed)
Specialist in Periodontics
& Practice Principal



Dr Guilherme M. Xavier
BDS, PGDip, MSc, MOrth (RCSEd),
PhD, FHEA Specialist in
Orthodontics



Dr Neha Patel
BDS Brist 2008 MJDF RCS(Ed) FHEA
MClinDent(Endo) MEndoRCS(Ed)
Specialist in Endodontics

The patient's dental wishes were:

1. To be able to smile with confidence (she hated the "vampire teeth")
2. To keep as many teeth as possible.
3. To have fixed teeth.

The diagnoses were:

1. Localised Severe Chronic Periodontitis
2. Overerupted and crowded LL1,2. Therefore the space is inadequate for both teeth.
3. Probable perio-endo lesion LL1.
4. Incomplete overbite in the lower incisor region.



Figure 1: Pre-op clinical photos and PA radiograph of LL1,2. There is bone loss

Figure 2. I fitted an immediate denture which the patient found satisfactory and whitened her teeth (upper row). In the lower row, I performed an intra-oral trial of the restorative camouflage and the patient was happy with the alignment of her teeth (lower row). I was also happy to note that labial preparation would be minimal (see lower left picture).



Definitive treatment options discussed were:

1. Orthodontic alignment and probable replacement of the LL1±LL2 after successful periodontal treatment of the LL2. She declined this option outright because she had wanted to avoid orthodontics completely. IT would have been the most, biologically-sound option
2. Restorative camouflage: Since LL1,2 afford a poor long-term prognosis, extract both of them, reduce restorative space with a restorative material (composite/porcelain veneers) and restore with a fixed option. The patient declined dentures.

Pertinent Pre-Treatment Assessment

1. Most PPDs were 4mm or less. There were 6-7mm PPDs around the LL1,2 which were grade 1 mobile.
2. The patient does not show the labial gingivae of the lower anterior (see figure 2) when she smiles.
3. Although the patient did not complain about colour, I tend to recommend whitening because in my experience, they tend to request it at the end of treatment when it is too late!!!
4. Minimal preparations required for the LR1,2 and LL3 to create the result of the intra-oral trial. (see figure 2) Therefore, composite or porcelain could be used. I opted for porcelain because it is more colour stable, does not require a significant amount of polishing in the maintenance phase and the bonding substrate is enamel.
5. The patient was medically fit and well and a non-smoker.

Treatment sequence

1. Consent process took 3 visits (initial examination and 2 sessions to discuss the treatment plan and intra-oral trial of wax-up).
2. Placement of a biomet 3i implant in a position guided by the new tooth positions (and not the extraction sockets). The implant was submerged for 3 months. The patient wore her temporary denture for that time.
3. Preparation of the LR1,3 and LL3 for porcelain veneers. The working impression also included the dental implant. See figure 3.
4. The restorations were fitted in one visit.
5. Hygienist visits at London Dental Specialists every 3 months for life.
6. Review with me every 2-3 years.
7. General dental care at her local practice.



Figure 3: the picture on the left shows a screw-driver in the implant and the implant is in an ideal restorative position. The picture on the left shows that the veneers are going to be 1mm thick.

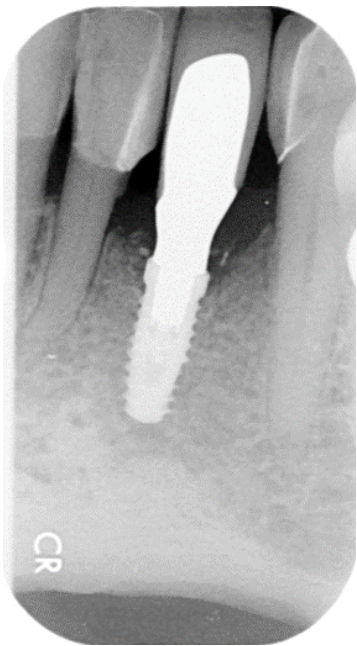


Figure 4: The pre-treatment picture are on the left and post treatment photos are on the right. The radiograph shows the implant bone levels after 3 years of loading. The bone level is excellent and patient is happy

DISCUSSION POINTS FOR THIS CASE

- Space for dental implants is always at a premium in the lower incisor region. It was only possible in this case because our patient has ended up with one less incisor.
- This relatively simple procedure was completed in 4 months and I briefly saw the patient today during an implant maintenance visit with my hygienist (4.5 years after completion) and she is still very happy with the results with no issues with the veneers or implant.
- I did not insist on alignment (to reduce the destructive nature of the preparations) because of I knew that my preparations would not expose dentine significantly. The use of composite could also be considered in this case but in my view, in this case, the minimal nature of the preparations mean that the benefits of porcelain colour stability outweigh the endodontic risks. Debonding/fracture is unlikely because of the enamel bonding substrate and favorable occlusion.
- If there was a risk of significant destruction of enamel and dentine exposure, I would have declined to treat the patient without orthodontic alignment.
- Access to an excellent and experienced technician is also paramount in cases like this. The patients wish list has been granted.

If you want to learn more about this type of treatment (especially the restorative and surgical aspects of implant dentistry) and many more, please look at our course and study club dates and follow us on social media: Instagram and facebook. We look forward to meeting you soon.

A Perfect partnership

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