Journal of Specialist Dentistry

Developing Dental Expertise

Issue N°2 - December 2015

Editorial Board

Welcome to the JSD

Editor, Dr Massimo Peru, BDS, MSc Endo

Following the success of the first edition, we are delighted to present two cutting edge clinical cases performed by two specialist dentists, and members of the JSD editorial panel, Dr Luisa Lucchesi and Dr Zulaikha Burki.

We are also pleased to introduce our new sponsor, Wright Cottrell, leading suppliers of dental materials.

If you are interested in developing your knowledge and practical skills, details of the next CPD seminar events organised by our partners at Chiswell Green Dental Centre can be found at page 4. The seminars are free of charge and valid for two CPD hours.

Best wishes,
Dr Massimo Peru

Chiswell Green Specialist Dental Centre

Contents

Journal of Specialist Dentistry
Developing Dental Expertise

Loss of a Lower Incisor in Adult

Dr Luisa Lucchesi
Specialist in Orthodontics

Introduction

Mandibular Incisor extraction is considered to be an unusual treatment option in orthodontics, and as such, accurate diagnosis and treatment planning is essential to achieve the desired results.

There is a scarcity in the literature regarding this extraction pattern, perhaps due to the limited number of patients who meet the standards for such management.

Below are the diagnostic criteria that are usually required for singular mandibular incisor extractions:

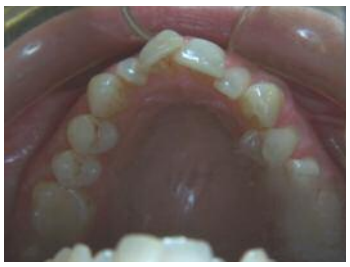
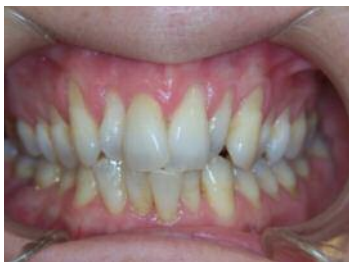
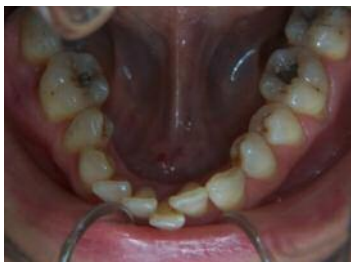
1. Class I molar relationship
2. Moderate crowding of the mandibular incisors
3. Mild or no crowding of the maxillary anterior teeth
4. Acceptable soft tissue profile
5. Minimal to moderate overjet and overbite
6. Minimal growth potential
7. Tooth size discrepancy eg peg shaped or missing maxillary lateral incisors.

The decision of which incisor to extract is very important. Several considerations should be assessed, including the presence of gingival recession or periodontal defect, large restoration, location of incisor relative to the crowding and the mesio-distal width of the incisor.

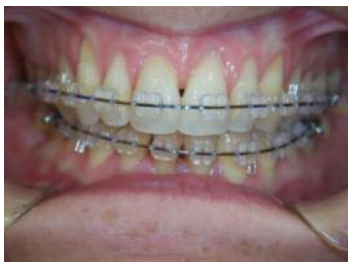
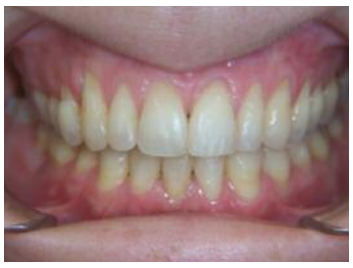
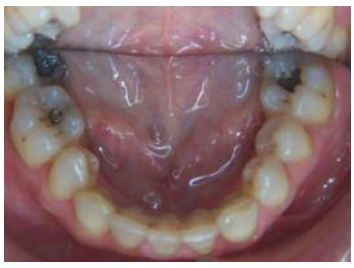
The incisor that is outside the natural arch and closest to the crowding is frequently the candidate for extraction. However, the main drawback to lower incisor extraction is loss of the mandibular centreline and an increase in overjet.

Case Report

A fifty one year old female presented with the main complaint of upper and lower anterior crowding. Meeting most of the diagnostic criteria for loss of a lower incisor, the more labially positioned lower left central incisor was elected for removal.

Upper and lower ceramic fixed appliances were placed for a treatment period of 17 months and this was followed by upper and lower bonded retainers at debond, supported with upper and lower removable night time retainers.

The patient achieved a very pleasing result with perfect alignment, good buccal interdigitation, a positive overjet and overbite and an overall improvement of her periodontal condition.

Multidisciplinary Management Of Severe Hypodontia

Dr Zulaikha Burki
Specialist in Prosthodontics

This case report presents the management of severe hypodontia. The initial treatment plan involved a multi-disciplinary approach involving fixed orthodontic treatment to redistribute spaces, followed by the replacement of missing teeth with implant retained restorations.

Once the fixed orthodontic treatment was finished, the orthodontist referred the 19 year old female back to commence the prosthodontic phase of her treatment. The patient's main concern was that she was unhappy with the general appearance of her teeth and felt self-conscious due to multiple missing teeth; she wanted to retain her median diastema.

The patient presented with 10 developmentally missing permanent teeth, excluding the third molars. There was also poor prognosis of the retained deciduous teeth. She had missing second premolars in each quadrant, missing upper first premolars and lateral incisors. She also had missing upper and lower left canines.

There was some relapse of the orthodontic movement due to lack of compliance with the orthodontic retainer. Therefore the space in the UR2 region was wider than ideal. Two diagnostic wax-ups were done on mounted casts at the existing occlusal vertical dimension.

- One diagnostic wax-up was done replacing the following teeth: UR4, UR2, UL2, UL3, UL4 and UL5.
- The second wax-up was done incorporating Kesling set-up, by moving UR3 to its desired mesial position on the cast. It was decided to wax-up wider teeth and exclude UL5.

The second wax-up provided a more symmetrical and aesthetic appearance. The patient preferred the second option; although this would involve accepting space distal to upper premolars. This option involved using a removable orthodontic appliance to mesialise the UR3 to reduce the UR2 space.

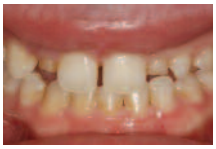
The treatment plan involved extraction of the deciduous teeth 6 weeks prior to the implant surgery. The patient wore an immediate provisional partial denture while the implants were integrating. The AstraTech® implants were placed as a single stage procedure in the mandible and as a 2 stage procedure in the maxilla, using a surgical stent based on the diagnostic wax-up as a guide. There was a lack of alveolar bone development due to missing permanent teeth and the decision was made to keep bone augmentation to the minimum. It was noted that Creton et al, 2010 also reported most of the implant failures of severe hypodontia patients happened in bone augmentation cases.

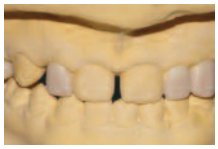
The prosthodontic phase involved replacement of UR2 and UR4 with single implant retained crowns. The UL2, UL3 and UL4 were replaced with a 3 unit mesial cantilever bridge on two implants. The lower E's to be replaced with single implant retained crowns, giving the crowns the appearance of a double premolar tooth.

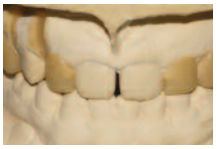
The patient underwent a provisional implant restorative phase to modify the gingival contour and improve the emergence profile. The final restorations included the UR2 and UL bridge as cement retained restorations on milled Atlantis® titanium abutments, the rest were screw retained restorations.

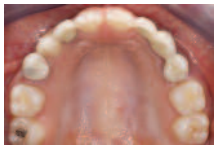
Conclusion

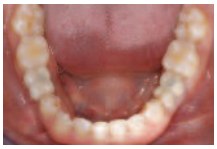
It is important to have a multidisciplinary approach to management of hypodontia patients to ensure an optimum outcome. The aim should be to preserve existing dentition and provide the most conservative restorative option.

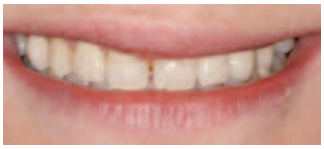

Preoperative View


Diagnostic Wax-up


Kesling Set-up


Definitive Restorations


Definitive Restorations


Final Result

Upcoming CPD Events

As part of Chiswell Green Dental Centre's committal to dental excellence we periodically organise evening seminars on different dental related subjects. These seminars are free of charge and valid for two CPD hours. **To register for your place please contact our reception team on 01727 800 372 or email info@chiswellgreendental.co.uk** Registration with refreshments starts at 6.00pm and the course begins at 7pm.

The next available seminars will be:

- Implants 20th Jan 2016
- Prosthodontics 25th Jan2016
- Periodontics 17th Feb 2016

Lunch & Learn

Book a "Lunch & Learn" session. We can visit you or you are welcome to bring your team to us. Let us show you the practice and give you a quick overview of the different treatment options available to your patients. We will provide a light lunch with refreshments. Just let us know how many members of your team will attend and each person will receive training worth 1 CPD hour. A certificate will be issued.

If you would like to participate in these sessions please email info@chiswellgreendental.co.uk or call us on 01727 800 372 for more information.

If you would like to refer a patient to one of our specialist dentists please complete the below form or request a referral pack by calling our reception team on 01727 800 372.

Private referral form

Practice and referring dentist details

Referring practice.....
Practice address.....
.....
.....

Referring dentist details:

Patient details

Patient's name.....
Patient's address.....
Town/City.....Post code:.....

Male/female.....
Date of birth.....
Home telephone.....
Mobile.....

Treatment required:

Restorative	Endodontics	Oral Surgery
Implants	Fixed Prosthodontics	Pedodontics
Implants placement only	Removable Prosthodontics	Opinion only
Periodontics	Orthodontics	

Reason for referral/provisional diagnosis.....
Treatment carried out to date.....
Medical and dental history.....
.....