Pre Models are not available for this sample case


# The American Board of Orthodontics 

Case Report<br>Title Page

## Case \#5

DI - 24

Patient's Name: Madelaine
ABO ID\# 09032


ID\#09032
\#5

08-29-07
12-08


ID\#09032

08-29-07 12-08



ID\#09032



ID\#09032
-

06-17-09 14-06

## D\#09032



# The American Board of Orthodontics 

 Clinical Examination Case Report Work FileVersion 2010-2011 What's new in this version?
Enter required case identification:

| ABO ID\# | 09032 |
| :--- | :--- |
| Exam Year | 2010 |
| Patient Name Example Case Madelaine |  |
| Case \# | 5 |

## Instructions:

1. Adobe Reader, Version 8 or later, is required. (Other PDF Viewers are not fully functional and should not be used; work at the same local hard drive to insure you are always using the same version of Adobe Reader.)
2. We recommend you use Save-As with a descriptive filename for each case.
3. Enter case report data to this work file at your convenience.
4. In the year prior to your intended clinical exam, register for the exam and you will be informed by email when the ABO electronic submission site is available to you.
5. Login at Online Services - Clinical Exam Electronic Submission.
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[^0]ABO WRITTEN CASE REPORT CASE\# 5

| PATIENT'S NAME: $\quad$ Example C | Example Case Madelaine |  | DOB (mm-dd-yyyy) | 12-15-94 |
| :---: | :---: | :---: | :---: | :---: |
| RECORDS SET | A |  | A1 | B |
| RECORDS DATE (mm-dd-yyyy) 08 | -2-2007 |  |  | 06-17-2009 |
| PT. AGE (yy-mm) | 2-8 |  |  | 14-6 |
|  | SINGLE PHASE | OR | PHASE ONE | PHASE TWO |
| INITIATED TX DATE (mm-dd-yyyy) | 10-01-2007 |  |  |  |
| COMPLETED TX DATE (mm-dd-yyyy) | 06-17-2009 | OR |  |  |
| CASE CRITERIA IDENTIFIER | 24 |  |  |  |
| DI VALUE |  |  | CATEGORY NUMBER |  |

## HISTORY AND ETIOLOGY: 630 max.

Thirteen year old female patient whose chief concern is that her 3teeth do not fit together. She was referred by her general dentist for concerns with occlusion. Patient presented in the permanent dentition with a bilateral Class III dental relationship. Excellent oral hygiene.

## DIAGNOSIS

## Skeletal: 360 max.

Class I with Class III tendency (ANB $=1.5$ )
High mandibular plane ( $\mathrm{SN}-\mathrm{MP}=42, \mathrm{FMA}=29.5$ )
Cervical vertebrae maturation stage (CVMS) III: peak in mandibular growth has already occured

## Dental: 630 max.

Class III molar and Class III cuspid
Overjet $=-1.5 \mathrm{~mm}$ with anterior crossbite between UR-2 $/ \mathrm{LR}-2$
Overbite $=-1 \mathrm{~mm}$ with anterior open bite on UR-2
Mild anterior crowding: upper $=1 \mathrm{~mm}$; lower $=0.5 \mathrm{~mm}$
Coincident midlines
Developing 8 s in all quadrants
IIR-3 is edne tn edne with I R-4 and III -7 is edne to edne with II-3
Facial: 360 max.
Straight profile, long lower facial third, obtuse nasolabial angle, competent lips at rest with retruded lips in reference to E-plane

## SPECIFIC OBJECTIVES OF TREATMENT

Maxilla (all three planes): 180 max.
Normal growth changes expected in A-P and vertical dimensions, expand transverse

Mandible (all three planes): 180 max.
Normal growth expected in all three planes of space but it is expected to be more vertical than horizontal.

## Maxillary Dentition

A-P: 180 max.
Procline incisors to establish positive overjet, protract molars

Vertical: 180 max. CASE\# 5

2140
characters remaining
No incisor change expected or planned. Molars expected to extrude with Class III elastics

Intermolar Width: 90 max.
Slight expansion as measured from mesiopalatal cusp tips U-6s

## Mandibular Dentition

A-P: 180 max.
Retrocline incisors with minimal retraction to establish positive overjet, no change planned in molar position

Vertical: 180 max.
Level curve of Spee to extrude premolars

Intermolar / Intercanine Width: 180 max.
No change planned

Facial Esthetics: 270 max.
No change planned in lip balance relative to E-plane

## TREATMENT PLAN: 1170 max.

Band and bond upper and lower arches, level and align. Necessary space and initiation of Class III correction in the upper arch to be gained as a result of slight archwire expansion, and proclination of upper incisors with protraction of upper molars encouraged by Class III elastics. ARS upper premolars to encourage mesialization of U-6s. Extrusion of upper and lower incisors expected to achieve positive overbite and overjet. Due to dentoalveolar compensation of Class III tendency, excessive upper incisor proclination and excessive lower incisor retroclination is expected. Detail occlusion and seating elastics as needed. Retention with removable maxillary acrylic wraparound retainer and fixed lower 3-3. Monitor 8s. With favorable growth and patient compliance good prognosis for treatment success.

## APPLIANCES AND TREATMENT PROGRESS: 990 max

0.022 pre-adjusted appliances (Victory Series; 3M/Unitek), MBT prescription

After initial leveling with NiTi archwires, short class III elastics were worn full-time for 14 months until progression into $19 \times 25$ SS braided arch wires. Started leveling lower Curve of Spee with light straight leg reverse curve Niti wires. Progress panoramic radiograph was taken 4 months into treatment to check and adjust root positioning. Buccal overjet in U-6s and U-7s was minimal, so molar offset bends were placed. When that was not successful, a quadhelix with arms removed was inserted for 3 months to gain maxillary expansion in U-6s. Box elastics were worn from U-6s and $U-7 s$ to $L-6 s$ and $L-7 s$ to seat the $U-7 s$ for an additional 4 months. Finishing bends and seating were performed in 0.018 SS arch wires. Upon appliance removal, retention with maxillary acrylic wraparound retainer and fixed lower 3-3.

## RESULTS ACHIEVED

If differing radiographic units preclude superimposition(s) - check here $\square$
Maxilla (all three planes): 180 max.
Transverse expanded, SNA and vertical remained stable.

Mandible (all three planes): 180 max.
Vertical growth at condyle

## Maxillary Dentition

A-P: 180 max.
Incisors proclined 1.5 degrees and molars protracted 1 mm

Vertical: 180 max.
Incisor extrusion by approximately 0.5 mm , molars extruded approximately 3 mm

Intermolar Width: 90 max.
Increased by 0.5 mm

## Mandibular Dentition

A-P: 180 max.
Lower incisor retroclined 0.5 degrees and molar position remained unchanged.
Vertical: 180 max.
Lower incisor extrusion by approximately 5 mm , molars tipped distal approximately 2 mm

Intermolar / Intercanine Width: 180 max.
Increase in intermolar width by 1 mm , intercanine width decreased 1 mm

Facial Esthetics: 270 max.
Facial esthetics remained unchanged.

RETENTION: 630 max.
Bonded lower 3-3. Upper removable acrylic wraparound retainer: full-time wear for 6-12 months, then evening wear indefinitely.

## FINAL EVALUATION OF TREATMENT: 1170 max.

Treatment objectives were achieved with excellent esthetic and functional results due to favorable growth and exceptional patient compliance with elastic wear. Favorable vertical growth facilitated incisor extrusion to compensate for Class III tendency, but there is a certain relapse potential for the excessively extruded incisors. Although upper arch expansion was not initially planned, the quadhelix was used to gain additional buccal overjet in the posterior segment. A stable Class I occlusion was obtained, while obtaining coincident midlines. We did extrude the lower first molar, which was most likely due to the reverse curve NiTi wires used throughout treatment to level the lower arch. With slight molar extrusion there was a down and back rotation of the mandible, opening the SN-MP angle 1 degree. However, this down and back rotation did not affect the patient's esthetics negatively. Root positioning of UR-5 and LL-2 could have been improved. Patient and parents have been informed of potential need for orthognathic surgery should patient continue to grow in Class III vector. Further growth will be monitored during retention.
Examiners will verify measurements in each
parameter. parameter.

## OVERSET

$0-0.9 \mathrm{~mm}$. (edge-to-edge)
$1-3 \mathrm{~mm}$.
$3.1-5 \mathrm{~mm}$
$5.1-7 \mathrm{~mm}$.
$7.1-9 \mathrm{~mm}$.
$>9 \mathrm{~mm}$.
Negative Overjet (x-bite):
1 pt. per mm. per tooth
Total

## OVERBITE

$0-3 \mathrm{~mm}$.
$3.1-5 \mathrm{~mm}$.
$5.1-7 \mathrm{~mm}$.
Impinging (100\%)

## ANTERIOR OPEN BITE

0 mm . (edge-to-edge), 1 pt . per tooth then 1 pt . per additional full mm . per tooth

Total

$$
\begin{aligned}
& =3 \mathrm{p} \text { pts. } \\
& =1 \mathrm{pts} .
\end{aligned}
$$

4

## LATERAL OPEN BITE

2 pts. per mm. per tooth
Total
CROWDING (only one arch)
0-1 mm.
$1.1-3 \mathrm{~mm}$.
$3.1-5 \mathrm{~mm}$.
$5.1-7 \mathrm{~mm}$.
$>7 \mathrm{~mm}$.

$$
=0 \text { pts. }
$$

$=1 \mathrm{pts}$.
$=2 \mathrm{pts}$.
$=4 \mathrm{pts}$.
$=7 \mathrm{pts}$.

## LINGUAL POSTERIOR X-BITE

1 pt. per tooth Total

## BUCCAL POSTERIOR X-BITE

2 pts. per tooth Total

## CEPHALOMETRICS (See Instructions)

ANS $\geq 6^{\circ}$ or $\leq-2^{\circ}$
@ 4 pts. $=$ $\qquad$
Each degree $>6^{\circ}$
$\times 1$ pt. = $\qquad$
Each degree $<-2^{\circ}$
$\times 1$ pt. = $\qquad$
SN-MP
$\geq 38^{\circ}$
Each degree $>38^{\circ}$
$@ 2$ pts. $=\frac{2}{8}$
$\times 2$ pts. $=\underline{8}$
$\leq 26^{\circ}$
Each degree < $26^{\circ}$
$\overline{1}$ to MP $\geq 99^{\circ}$
Each degree $>99^{\circ}$
@ 1 pt. = x 1 pt. = Total
$\qquad$
$\qquad$

10
@ 1 pt. = $\qquad$
$\qquad$

OTHER (See Instructions)
Supernumerary teeth
__ $\times 1$ pt. $=$ $\qquad$
Ankylosis of perm. Teeth $\times 2$ pts. $=$ $\qquad$
Anomalous morphology $\times 2$ pts. $=$ Impaction (except 3rd molars) $\times 2$ pts. $=$
Midline discrepancy (>3 mm)
@ 2 pts. =
Missing teeth (except 3rd molars)
Missing teeth, congenital
Spacing (4 or more, per arch)
__ $\times 2$ pts. $=$
$\qquad$

Total

Spacing (max cent diastema > 2 mm )
Tooth Transposition
Skeletal asymmetry(nonsurgical tx)
Addl. treatment complexities Identify:

INSTRUCTIONS: Second molars should be in occlusion. Mark extracted teeth with a check in the bolded box. Place score beside each deficient tooth.
$\square$
Total C-R Eval Score:

1

$\mathbf{R}$

$L$

L

R

## Buccolingual Inclination

$\square$

R
$\square$
Overjet
R

$L$

## Occlusal Contacts

$\square$



Buccal Surface


L


Lingual Surface


R
$\square$
$\mathbf{R}$


L
2

## Interproximal Contacts



Root Angulation $\square$


L

Version 2010-2011

Examiners will evaluate treatment objectives and results, in addition to doing a Records Analysis and Overall Analysis.


FACIAL ANALYSIS (F)

| E-LINE | Upper <br>  <br>  | -4.5 |  | -5.5 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Lower | -3.5 |  | -4.5 | 1 |

FACIAL No change observed

| $O$ | 0 | $O$ | 0 |  |
| :--- | :--- | :--- | :--- | :--- |
| $O$ | 1 | $O$ | 1 | 0 |

S-D-F Subtotal
RECORDS ANALYSIS Shaded areas for examiner only.

|  | $\begin{aligned} & \text { FACLAL } \\ & \text { PHOTOS } \end{aligned}$ |  | $\begin{aligned} & \text { INTRAORAL } \\ & \text { FHOTOS } \end{aligned}$ |  | INTRAORAL RADIOGRAFHS |  | $\begin{gathered} \text { CEPH.S } \\ \text { TRACINGS } \end{gathered}$ |  | $\begin{aligned} & \text { COMP } \\ & \text { TRACING } \end{aligned}$ |  | $\begin{aligned} & \text { DENTAL } \\ & \text { CASTS } \end{aligned}$ |  | $\begin{gathered} \text { CABE } \\ \text { REPORT } \end{gathered}$ |  | PRESENT.QUALITY |  | SUB-TOTAL RECORDS ANALYSIS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { PRE-TXA } \\ & \text { ORR } \\ & \text { PROQ. A1 } \end{aligned}$ | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |  |  | 0 | 1 | 0 | 1 | 0 | 1 |  |
| FINAL 3 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |  |

## OVERALL ANALYSIS




[^0]:    ** Currently published ABO exam specifications apply to each year's exam, no matter when the examinee began gathering records. If you upload a former year's Case Report Work File, you will be alerted if any data has not transferred. You are encouraged to login early and verify your case reports against current year specifications.

