

AUSTRALASIAN ORTHODONTIC BOARD



CASE IDENTIFICATION 18 - ST



AUSTRALASIAN ORTHODONTIC BOARD

CASE DETAILS
(Form 2)

For each of your 2 Board cases, submit a copy of this form and pre-treatment records to your State Convenor (contact details for your State Convenor are on the ASO website: <https://www.aso.org.au/state-convenors>)

- For the Case ID please use your AOB number and patient ID (usually initials), e.g. 456 AT
- For each case include Clinical findings, diagnosis, treatment plan, mechanics, radiographs (OPG, Ceph, Ceph values), Photos (IO, EO), Digital models.
- See the attached Sample case for example.

Consent forms only are required for each of your 3 Back-up Cases.

When AOB-appointed peers have assessed your two Board Cases, the case records and an evaluation report will be returned to you. Assessment will be anonymous and non-graded. You will be notified when you have completed AOB Stage 1.

| | | | | |
|--------------------------------|--|-----------------------|------------|-------------------|
| Case ID | 18 - ST | Date Submitted | 01-07-2005 | |
| Gender | Female | Date of Birth | 04-01-1991 | |
| Medical History | Nil relevant | | | |
| Dental History | Congenitally missing upper right lateral incisor | | | |
| Oral Health Status | Satisfactory | | | |
| Angle Classification | <input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II Div 1 <input type="checkbox"/> Class II Div 2 <input type="checkbox"/> Class III | | | |
| Molar Relationship | Right | Half tooth Class II | Left | Whole tooth Class |
| Anterior Relationship | Overjet | 4 mm | Overbite | 4 mm |
| Centrelines | Upper | 4 mm to right | Lower | 1 mm to left |
| Arch length discrepancy | Upper | 0 mm | Lower | 0 mm |
| Summary of Radiographs | OPG All teeth present apart from the Congenitally missing lateral incisor (12) | | | |
| | Lat Ceph See attached cephalometric analysis (Summary of Findings) | | | |

Treatment Plan

| | |
|----------------------------|---|
| Extractions | Nil |
| Appliance(s) | Fixed appliances - Roth prescription (018" slot) |
| Treatment mechanics | Align, level and coordinate the arches. Create space for prosthetic replacement of missing lateral incisor. Use headgear and/or inter-maxillary elastics to establish Class I occlusion |
| Proposed retention | Upper and lower removable retainers (prosthetic tooth in position of missing lateral incisor) |

Additional Comments

Please proceed to Page 2 for additional comments.



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Additional Comments

Please evaluate this case. This submission should include comments such as relevant features of the case, the reasons why this treatment has been proposed and any possible alternate treatment plans. It should also include such items as the challenges and difficulties that may be encountered during treatment.

Case ID: 18 - ST

This patient has a fairly severe, asymmetric, Class II Division 1 malocclusion.

In the upper arch the upper right lateral incisor is congenitally missing. The upper central incisors are separated by a midline diastema (which is associated with a low frenal attachment) and the upper left lateral incisor is rotated. The upper right canine has drifted forward into the position of the missing lateral incisor.

There is space to spare in the lower arch which is reasonably well aligned.

The lower incisors are forward of their ideal position but the patient has a pleasant profile and a brachyfacial skeletal pattern, and I consider that it would be preferable to leave them in this position. Therefore, I will treat this as a non-extraction case.

The patient's maxilla is slightly forward of ideal so, to harmonize her profile, I will endeavour to obtain most of the antero-posterior correction using headgear. Because of the asymmetry, intermaxillary elastics will also be required to obtain a Class I occlusion on the left side.

I will use a bonded wire to prevent the upper midline diastema from re-opening and an upper removable retainer with a prosthetic tooth replacing the missing lateral incisor. I will consider an upper midline frenectomy if the frenum is bulky and unattractive.

The main challenge in this case will be to motivate the patient to wear headgear and intermaxillary elastics to correct the asymmetric antero-posterior disharmony.

An alternative treatment would be to remove the upper left lateral incisor and to reshape both upper canines to resemble and replace the missing lateral incisors and to leave the buccal relationship a full tooth Class II.

Another alternative would be to align, level and co-ordinate both arches with fixed appliances (leaving a space for the missing lateral incisor) and to surgically correct the antero-posterior disharmony by asymmetric mandibular advancement.

The patient and I prefer the chosen treatment plan as outlined above.

Case ID 18 - ST
DOB 04 01 1991
Age 11.10 years
Sex Female

Status Pre-treatment
Date 02 12 2002

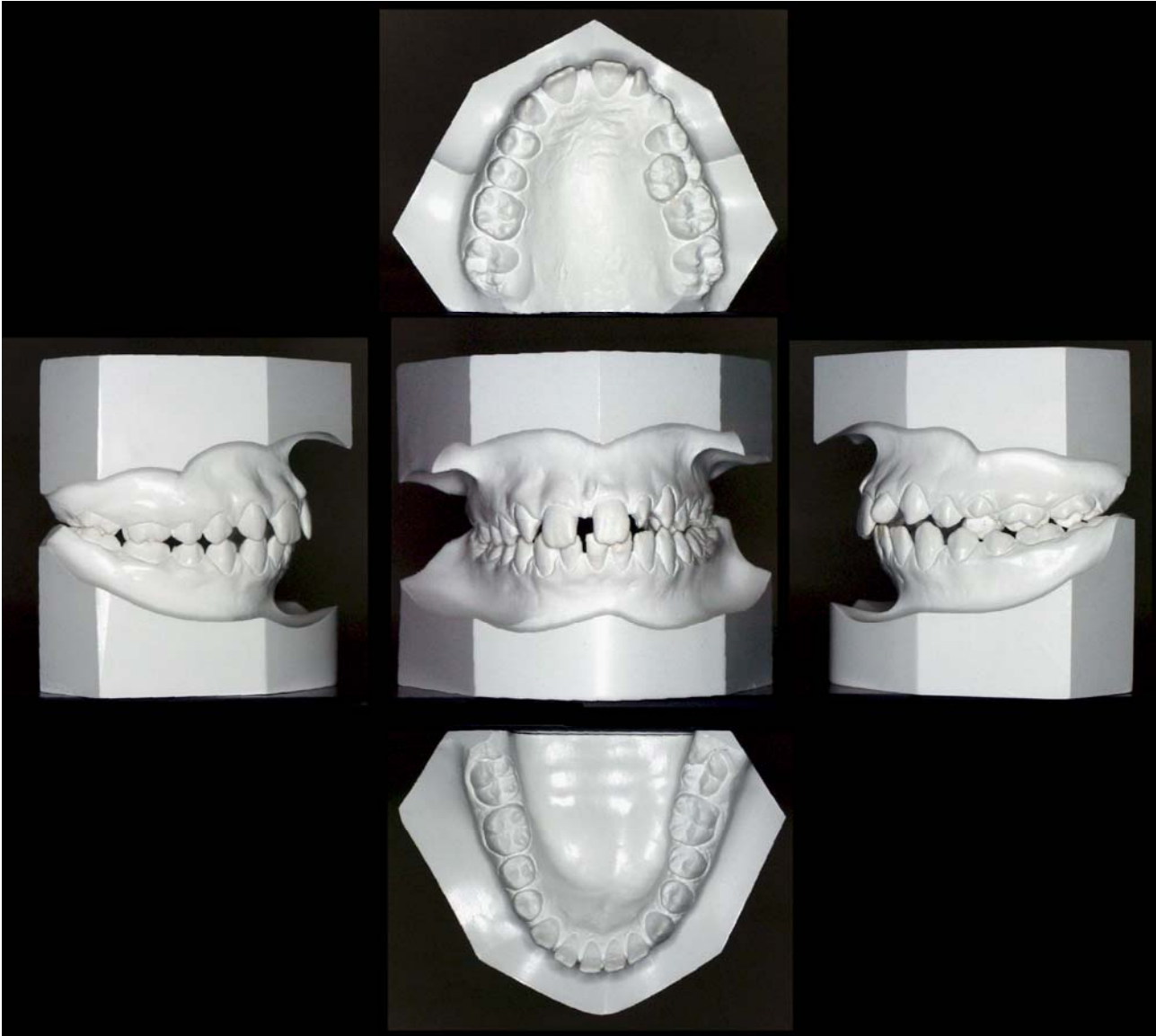
Extra-oral and intra-oral photographs



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Study Models



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Orthopantogram



Congenitally missing upper right lateral incisor.

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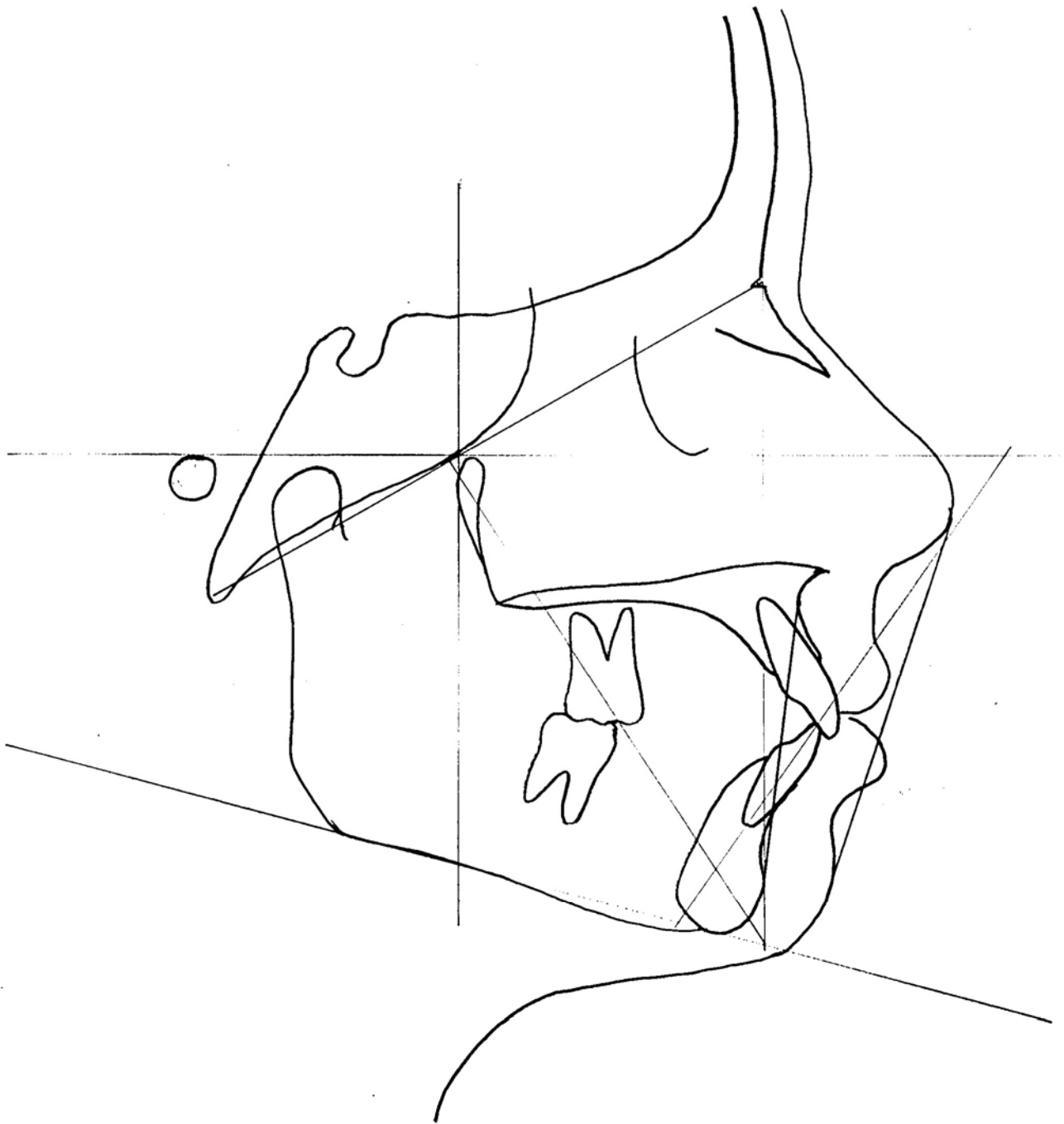
Lateral Cephalogram



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Cephalometric Tracing



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Cephalometric Analysis

Ricketts Analysis

| Parameter | Mean | Adjusted Mean | Measurement | Notable Difference |
|---------------------------|---------------|----------------------|-------------|--------------------|
| Chin in Space | | | | |
| Facial Axis | 90 ° ± 3.5 ° | No adjustment | 92 ° | |
| Facial Depth | 87 ° ± 3.0 ° | + 1 ° every 3 years | 88 ° | |
| Mandibular Plane | 26 ° ± 4.5 ° | - 1 ° every 3 years | 17 ° | ** |
| Convexity | | | | |
| Convexity of A Point | 2 mm ± 2 mm | - 1 mm every 3 years | + 6 mm | ** |
| Teeth | | | | |
| Lower Incisor to A-Pog | 1 mm ± 2 mm | No adjustment | + 6 mm | *** |
| Lower Incisor Inclination | 22 ° ± 4.0 ° | No adjustment | 30 ° | ** |
| Upper Molar to PtV | Age + 3 mm | + 1 mm per year | 16 mm | |
| Profile | | | | |
| Lower Lip to E Plane | - 2 mm ± 2 mm | Reduces with growth | + 2 mm | ** |

Summary of Findings

1. Class II skeletal pattern - maxilla protrusive
2. Brachyfacial
3. Dentition protrusive
4. Lower lip protrusive