

Case presentation

- A 25-year-old female patient, with no relevant systemic medical conditions, presented to our clinic expressing dissatisfaction with the aesthetic appearance of her smile. She reported that, during multiple previous consultations in other dental centers, full-mouth extraction followed by an All-on-X rehabilitation had been recommended due to advanced periodontal disease. The patient, exhibiting significant dental anxiety, emphasized that she refuses the extraction of any tooth with even limited prognostic viability, and fully acknowledges the risks and potential failures associated with a conservative treatment strategy
- Comprehensive diagnostic documentation was obtained, including intraoral and extraoral photographs, as well as radiographic investigations consisting of a panoramic radiograph and lateral cephalogram. When integrated with the clinical intraoral and extraoral findings, the following diagnoses were established: Class II molar relationship associated with bimaxillary protrusion, deep bite with complete overbite coverage, pathologic tooth migration secondary to advanced periodontitis and long-standing untreated edentulous spaces, anterior crossbite, canine–premolar transposition, an ectopic premolar positioned palatally, severe but currently non-progressive periodontal disease, and lateral edentulous areas.
- Treatment’s objectives:
 1. Obtaining canine class I relation
 2. Overjet correction by retruding both frontal segments
 3. Overbite correction by frontal intrusion
 4. Maintain dental anchorage, without the use of skeletal anchorage
 5. Correcting 24 position, by maintaining the transposition with tooth 23
 6. Modyfying the prosthetic space, in order to treat the spaces with implants and prosthetic crowns (1st and 3rd quadrants)
 7. Enhancing periodontal support, by moving teeth back into the correct balance between lips/ buccal area vs tongue, by modifying root-crown ration, and removing the secondary occlusal trauma
 8. Facial profile and smile enhancement
- The orthodontic treatment started only after the periodontal treatment was giving results and all the periodontal index were favourable, using bimaxillary metallic fixed appliances. The edentolous spaces were treated with implants and prosthetic crowns.. The 23-24 transposition needed aesthetic reshaping, using adhesive techniques. During the active phase of orthodontic treatment, periodical checkups with the periodontal team were indicated every 3 months. The patient was extremely compliant and her dental hygiene improved. The contention phase was long-term, with fixed bonded retainers, bimaxillary.
- After the orthodontic treatment was completed, guided gingival regeneration was recommended, to correct the gingival recessions.

Initial photos



Initial radiographs





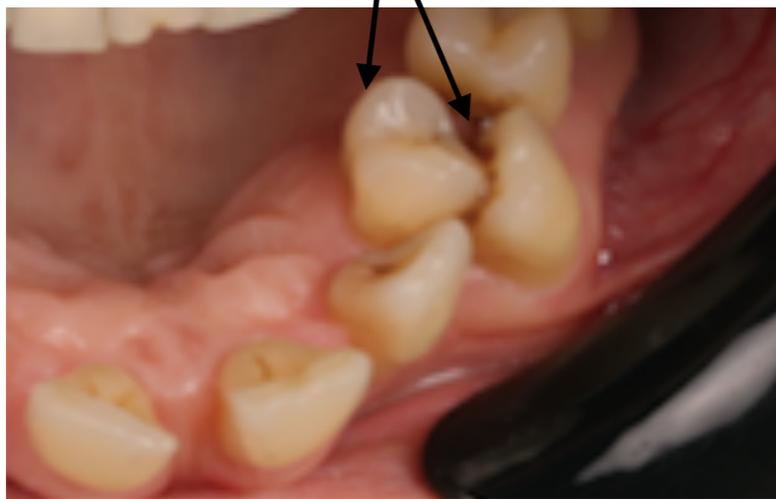
Canin-bicuspid transposition treatment



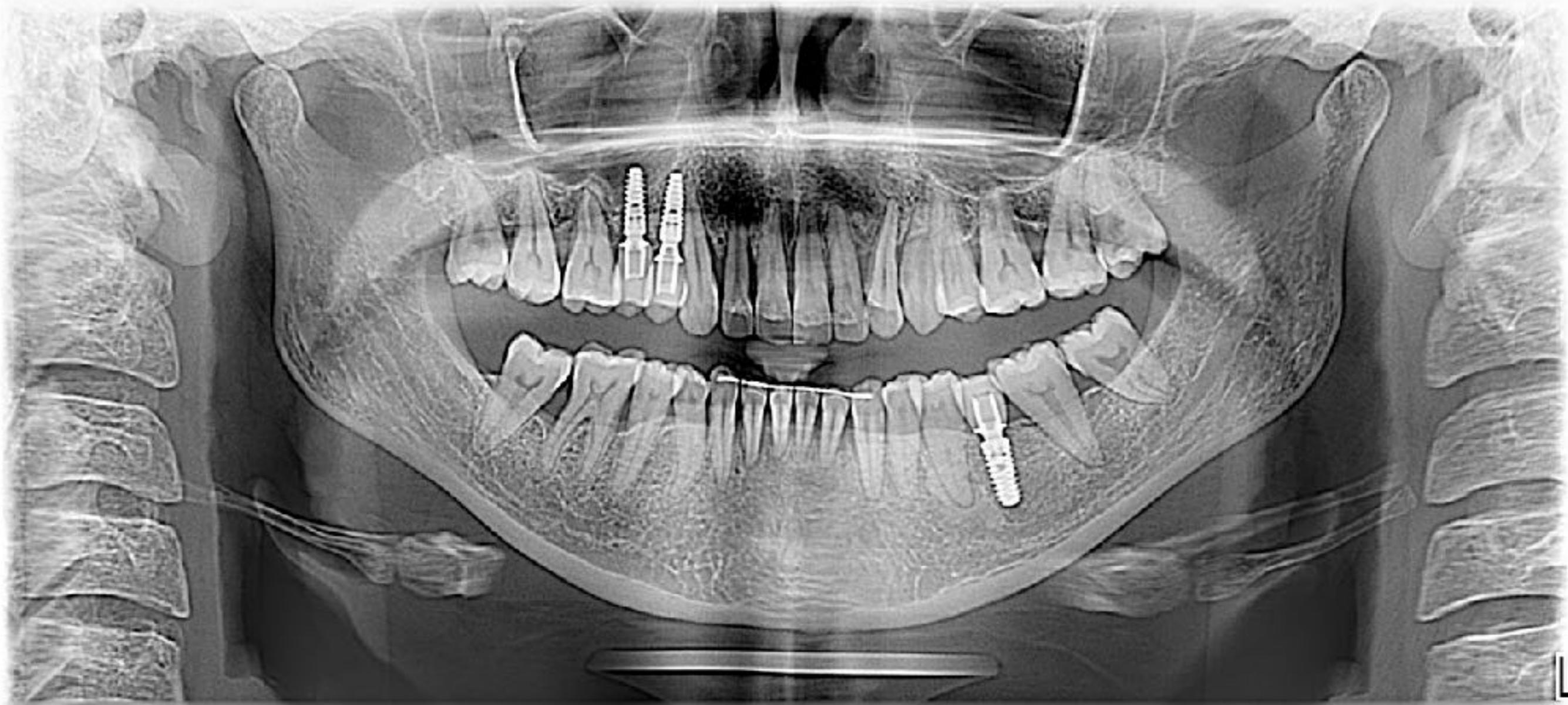


Canin-bicuspid transposition

- Bicuspid 24
- Canin 23



Final x-ray



Before-after intra-oral



Before-after extra-oral

