

Osteogenic distraction using a dental-anchored distractor

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Objective

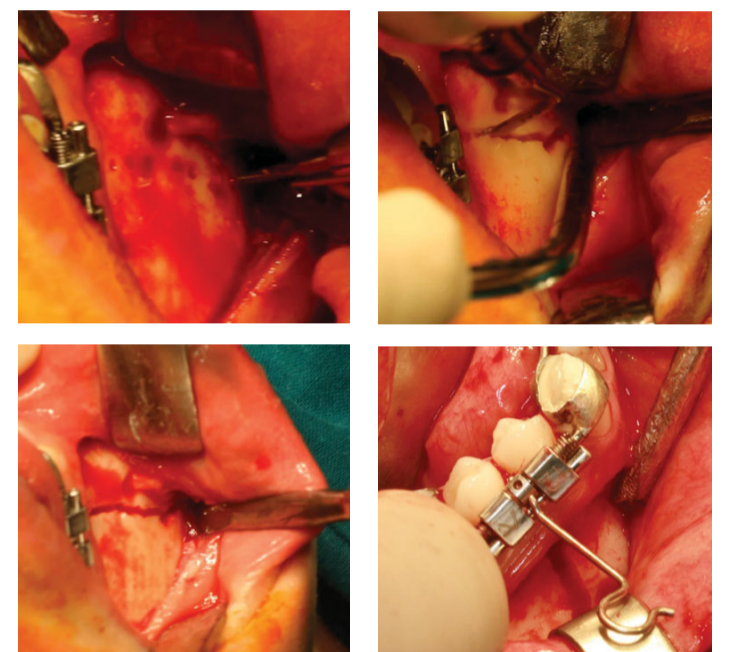
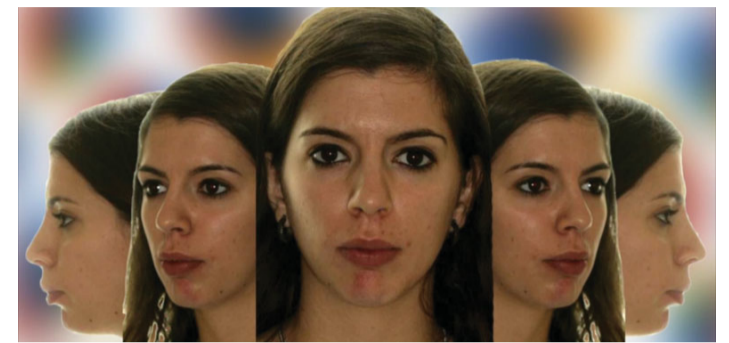
The osteogenic distraction should be considered as a treatment option for mandibular retrognathism.

Case report

Female patient, 21 years old, Class II, hyperdivergent, with mandibular retrognathia requiring combined orthodontic-orthognathic surgery treatment. A custom-manufactured dental-anchored distractor was placed.

Surgically, an incision was performed bilaterally on the mucosa with subperiosteal detachment, revealing the alveolar and basal bone and the outer face of the body of the mandible. Then the corticotomy of the external and internal cortical plates was performed using a Lindemann drill, between the lower premolars, with slight deviation in order to preserve the continuity of the inferior alveolar neurovascular bundle, osteotomy being carried out with an osteotome. After checking bone mobility, the distractor was tested and a plane suture was performed.

After 7 days of latency, the process of increasing the mandibular length was initiated, with a distraction rate of 1 mm/day for 10 days. After the distraction period, the device was locked, followed by a period of consolidation. To control the osteogenesis process, panoramic radiographs were performed.

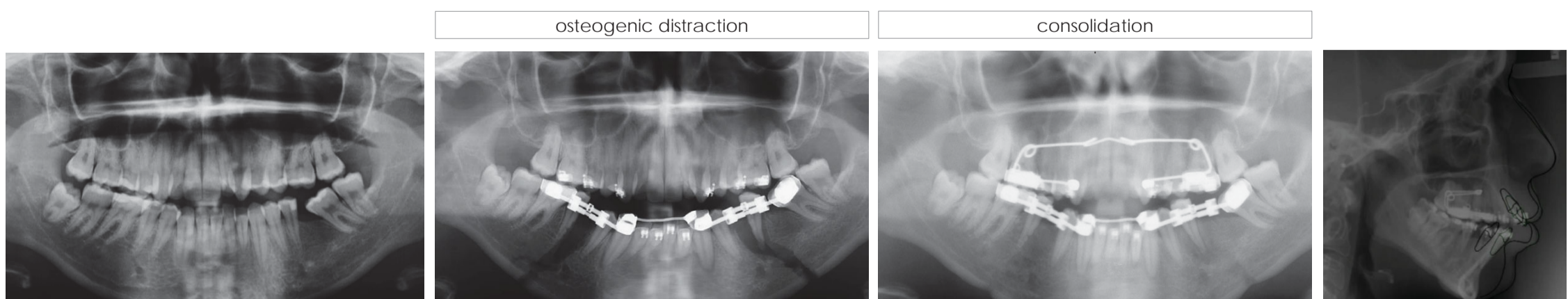
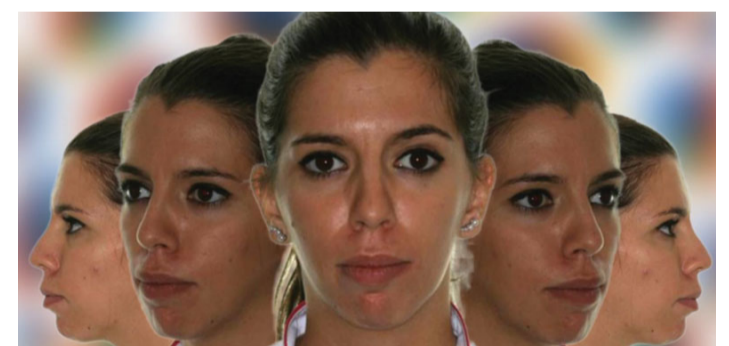


Results



Discussion

The osteogenic distraction is an alternative to mandibular bilateral sagittal split osteotomy, with the advantage of not requiring intermaxillary fixation, the recovery room period is minimal, there is less pain and less paresthesia, making it a non-disabling procedure. Additionally, the use of a dental-anchored distractor allows its placement and removal without demanding surgery.



Conclusions

The osteogenic distraction using a dental-anchored distractor was efficient in the sagittal lengthening of the jaw.