

Figure 5. (A) Orthopantomographic radiography with the presence of a compound odontoma, formed by many teeth, recognizable on the radiographic image. The maintenance of the deciduous element 72 and the inclusion of the left permanent canine 33 at the lower edge of the mandible. Moreover, mesial to the location of element 33, the presence of element 32 is marked; (B) Detail of compound odontoma, the presence of all the teeth forming the new formation; (C) Cranial telerradiograph in lateral–lateral projection showing the neoformation, the width of the symphysis is completely occupied by the odontoma.

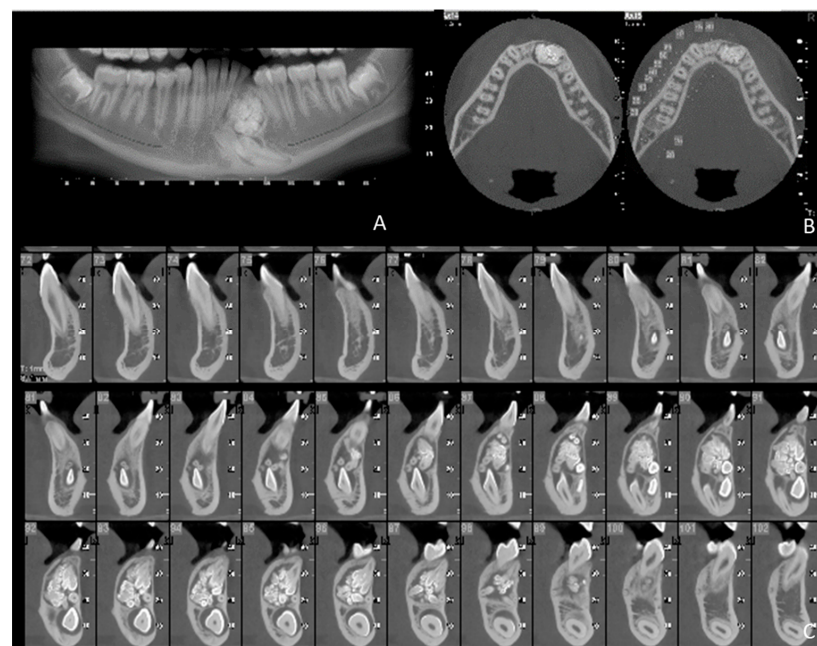


Figure 6. Series of images from cone beam computed tomography (CBCT). (A) The localization of the neoformation is anterior to the emergence of the mandibular nerve, which is at the level of element 34.

During the surgical phase, the emergence of the nerve is highlighted in order to ensure its preservation. It is again possible to highlight the denticles; they are arranged with various degrees of angulation. The whole odontoma is positioned superiorly with respect to the permanent canine, which is in the inferior portion of the mandible; **(B)** The presence of the neoformation in the bone structure of the mandible. The vestibular cortex is thinned, absent in some places; **(C)** Axial slices showing lesion-thinning cortical plates and the compound odontoma occupying the entire sagittal thickness of the mandible in the upper part. Visible are the tooth-like structures, some fused together, others not fused, with different sizes. Canine 33 and lateral incisor 32 have been moved towards the mandibular caudal cortex in a more horizontal position, certainly raised by canine 33, presenting with hyperplastic dental follicle.

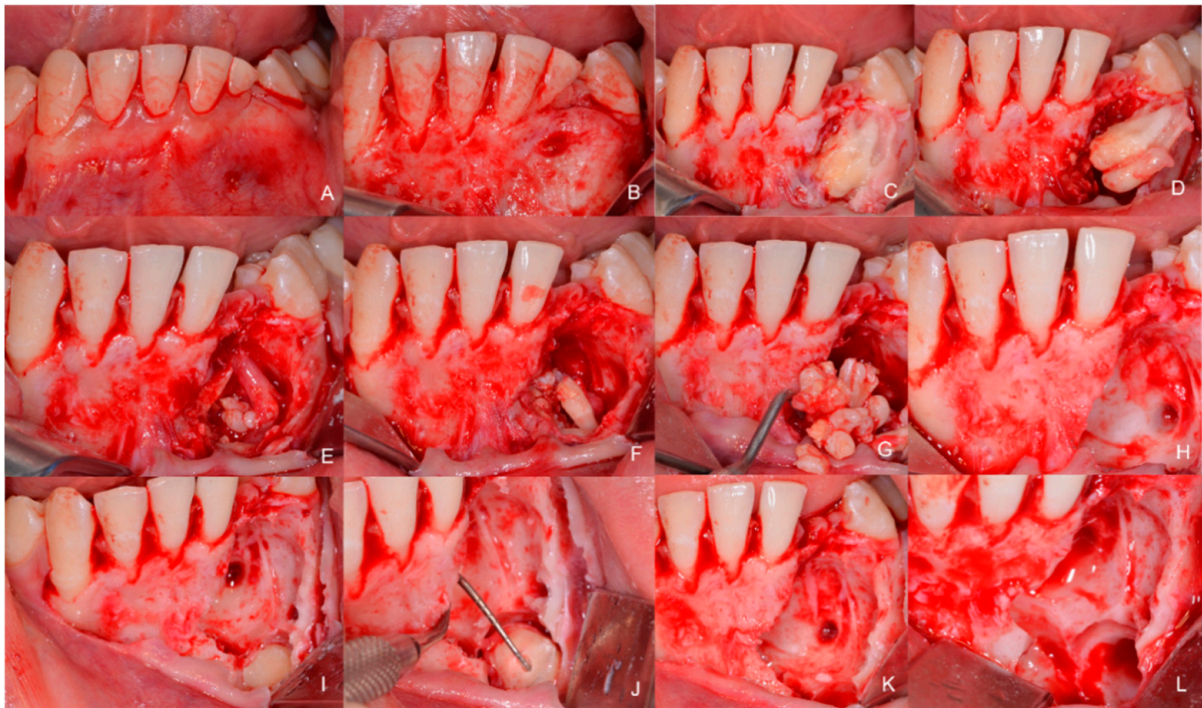


Figure 7. Intraoperative images. **(A)** “L”-shaped flap with the first incision with a distal discharge cut at 43 and then the other intrasulcular incisor along all the lower incisors, including the deciduous one, up to the level of 34; **(B)** Complete skeletonization of the bone. A veil of cortical bone above the odontoma is present; **(C)** Removal of the bone covering the odontoma and the various denticles are extracted **(D–G)**, on the images the denticles appear with a cluster or a cauliflower organization; **(F)** A slight capsule outside the odontoma is present; there is a good cleavage plane with respect to the underlying bone and there are no adhesions; **(H)** Complete removal of the compound odontoma; **(I)** The lower portion of the included canine begins to be seen. The crown of the canine is freed using the bone burs (bone cutter ball head 018 Hager & Meisinger GmbH, Neuss, Germany) on a straight handpiece (KaVo TYP Surgical straight handpiece dental, Genova, Italy), then the root **(J,K)** is also cut and extracted, as otherwise it would have been extremely difficult to extract the whole tooth; **(L)** Extension of the area and of the large bone defect following the surgical removal of the odontoma and the included dental elements.

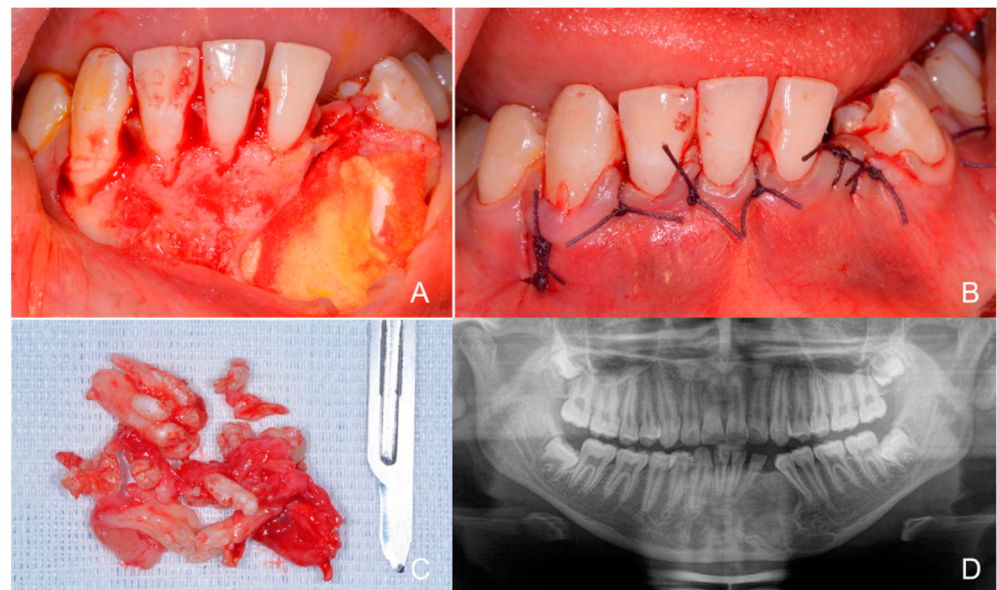


Figure 8. Post-surgery images. (A) The bone defect is filled with a fibrin sponge (Spongostan Dental, absorbable haemostatic gelatine sponge, Ethicon, Somerville, MA, USA), which guarantees a good clot; (B) The suture (Vicryl Ethicon 3.0, 17 mm 1/2c, Johnson & Johnson International, Hamburg, Germany) that recomposes the nature of the tissues is visible; (C) The odontoma clinical findings consisting of an ensemble of calcified structures, some like mini-teeth, some denticles appear as single-rooted, others as multi-rooted, some even fused, with no complete root formation and enamel, dentin, and cement being identified as dental tissues. (D) The orthopantomogram image after 6 months showing the progressive reconstruction of the bone anatomy of the area. The odontoma resulted in both dislocation and subsequent inclusion of 32 and 33, but also caused root displacement of 31, 41, and 34. Any type of orthodontic therapy is postponed; not only is bone formation required at all the entire area resulting from the surgical removal of the odontoma, but it is also necessary to check the vitality of the dental elements adjacent to the area itself.

1.3. Case Number 3

The third case presented here is that of a 15-year-old male patient. The surgery was performed in July 2021 (Figures 9–13).



Figure 9. (A) Orthopantomogram image of the dental arches. The inclusion of the lower left canine, element 33, and the presence of at least four denticles are noted. The organization of a new formation is a little different than in the previous cases; (B) Details of the pre-operative orthopantomogram on the left. This seems less organized as can be seen in detail in (B); the various denticles seem less circumscribed and more scattered in the bone structure. The presence of the neoformation determined the inclusion of the tooth; there are no agenesis.

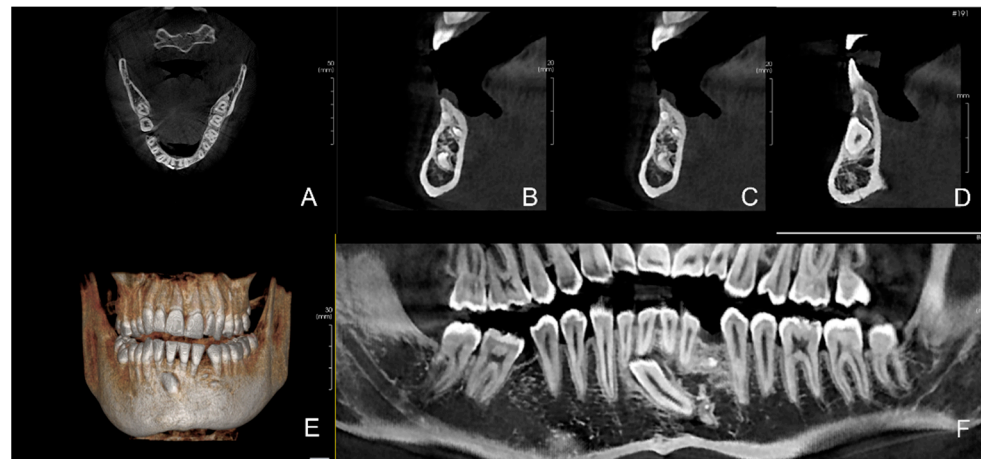


Figure 10. Series of images from cone beam computed tomography (CBCT) prior to the surgery. (A) The crown of the impacted canine 33 deforms the vestibular profile of the mandible; (B,C) Parasagittal images of the odontoma; (D) Parasagittal images, the canine can be seen in the vestibular position; (E) Three-dimensional reconstruction confirms the position of the canine which is at the level of the right central incisor 41; (F) Detail of the orthopantomographic image, showing the position of the canine in close contact with the root apices of the central incisors, 41 and 31, and also partially of the lateral ones, 32 and 42.



Figure 11. Intraoral photographic documentation before surgery. (A) Frontal view; (B) Particular of the frontal view in correspondence of the impacted canine upper area.

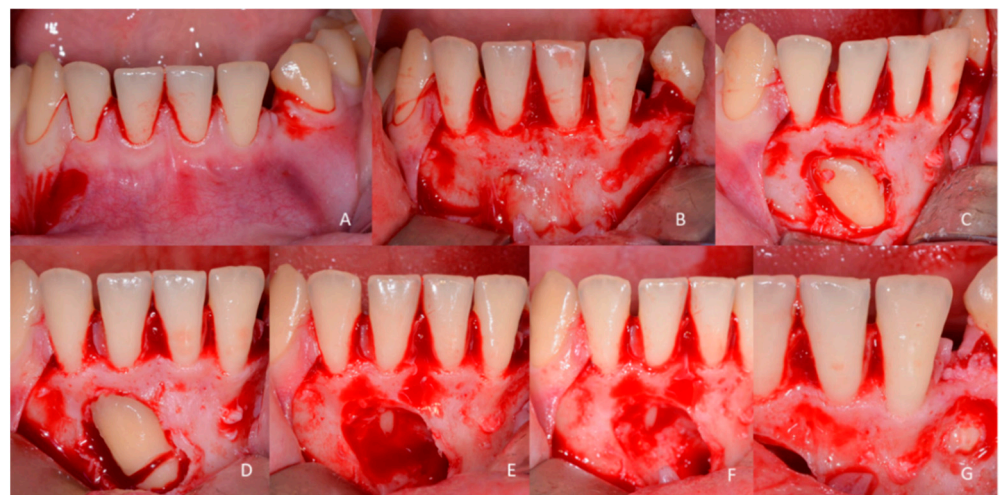


Figure 12. Pictures of the surgical procedure. (A) Flap design performed with the relief cut distal to 43, then within the gingival sulcus of the incisors; (B) After full thickness buccal flap the skeletonization of the bone, the included tooth is already visible, the bone is removed to remove the fibrotic sac present around the crown; (D–E) To make it possible to extract the impacted canine, (C) The crown is fully exposed;