



INTRODUCTION

Ameloblastoma is a benign, slow-growing, locally invasive odontogenic tumor and accounts for 11% of all odontogenic tumors.¹ It affects mainly adult patients between the third to the seventh decade of their life but is most commonly diagnosed in the third and fourth decades.^{2,3} Patients frequently represent asymptomatic bulging or a large lesion, perforating the cortical bone, shifting tissue, and causing tooth resorption.⁴ It affects the mandible four times more than the maxilla; it is more frequent in the molar region and the mandibular ramus⁴; however, it can also be found in the maxillary sinus and nasal cavity. Treatment may vary from curettage to broad bone resections, with or without reconstruction. Radiotherapy is not indicated because the lesion is radioresistant. In the literature, we also find indications for electrocauterization, cryosurgery, and the use of sclerosant agents as treatment options.¹ Image exams are essential in the post-op follow-up because over 50% of the recurrences happen in the first five years of post-operative.^{1,5}

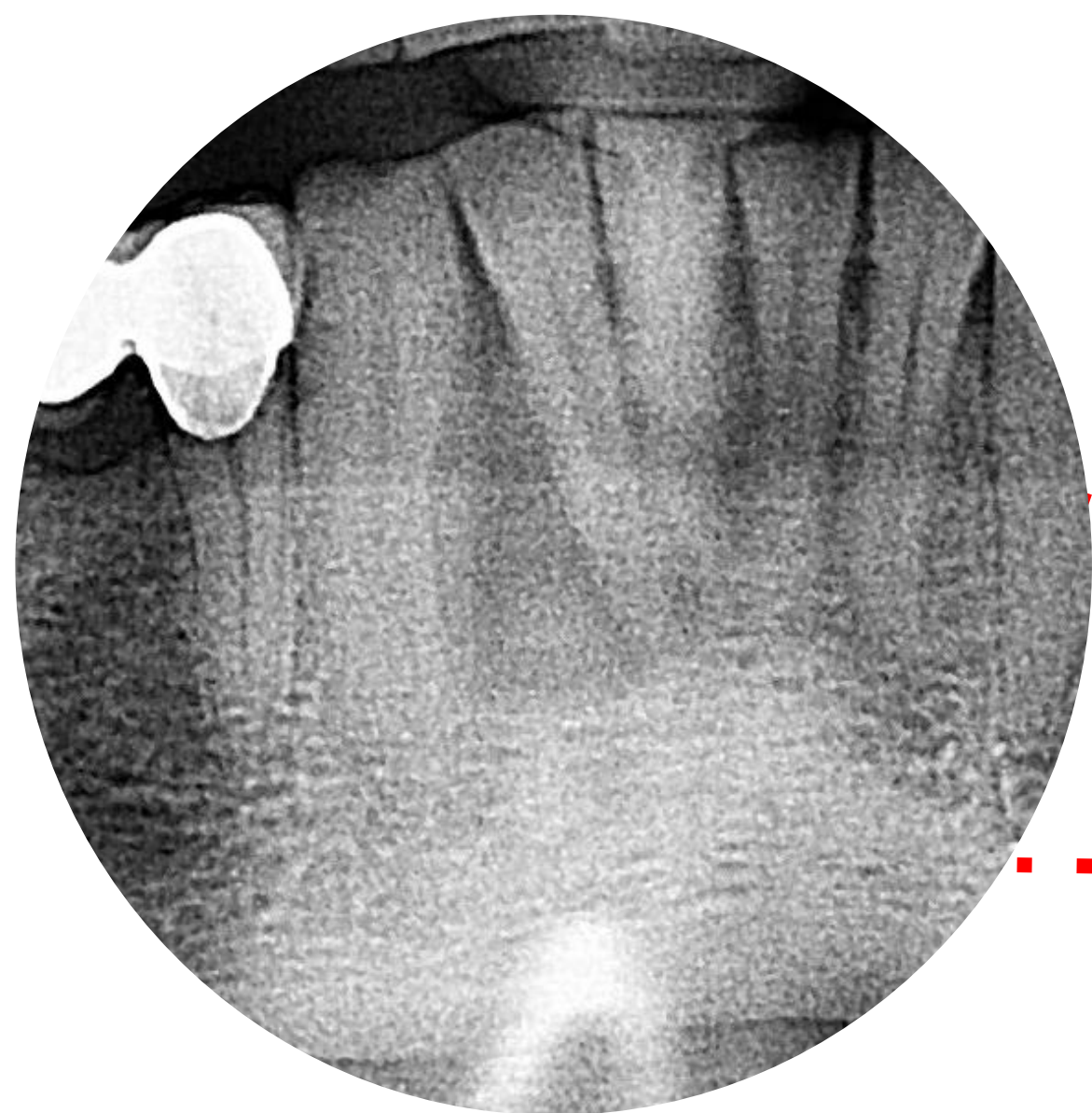
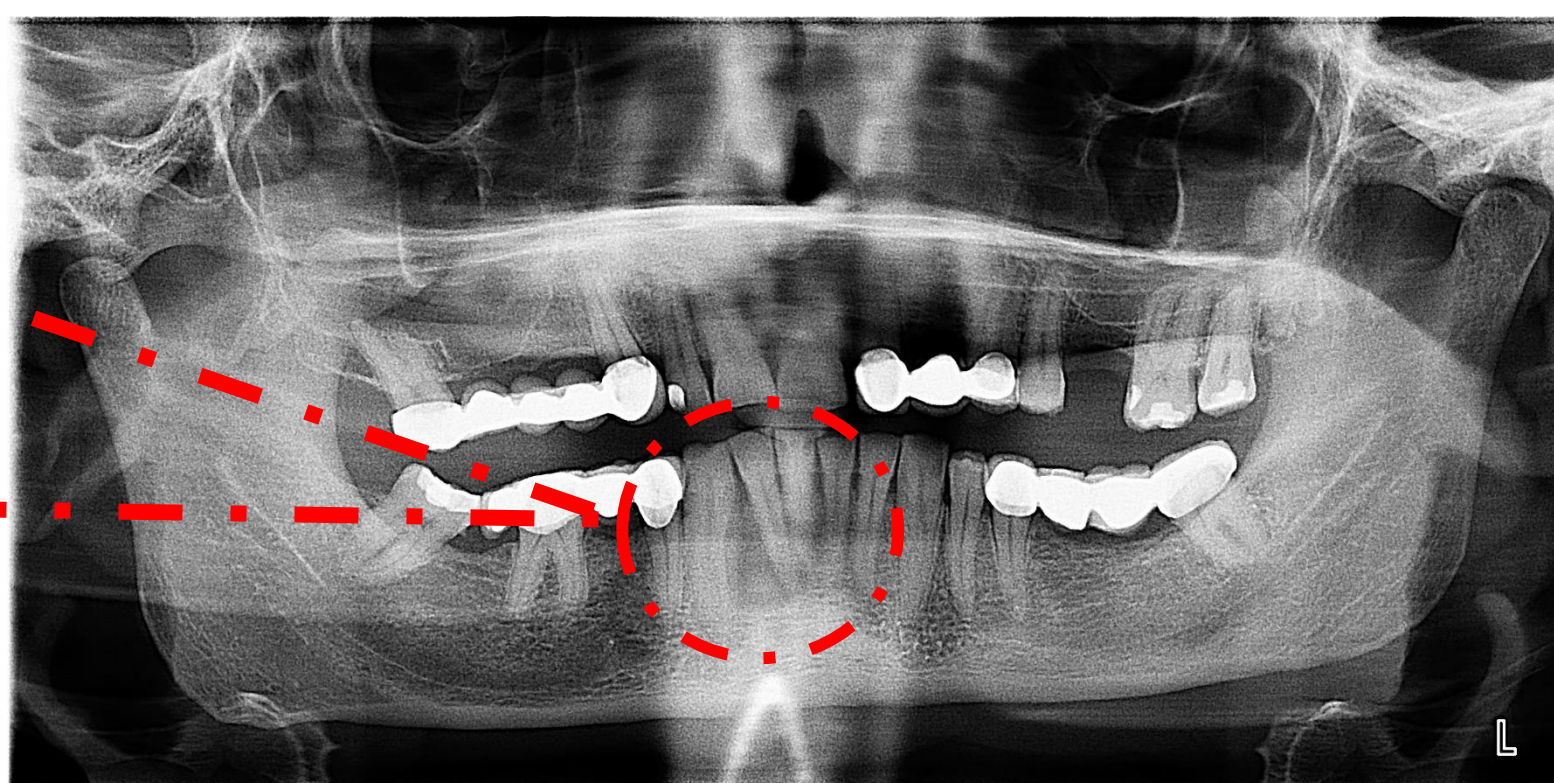
We present an adult patient with a rare anterior mandibular ameloblastoma who needed a resection of the anterior mandible and full arch extraction, followed by comprehensive prosthodontic rehabilitation.

DIAGNOSIS AND CLINICAL FINDING

A 42-year-old patient presented to the clinic with a small, proliferated soft tissue lesion on the attached marginal gingiva between teeth #26 & #27, with a displacement of these teeth. It was non-painful, but occasional bleeding was reported.



On the panoramic radiograph, 1.5 X 1.5 cm unilocular hypodensity was observed between teeth #26 and #27.



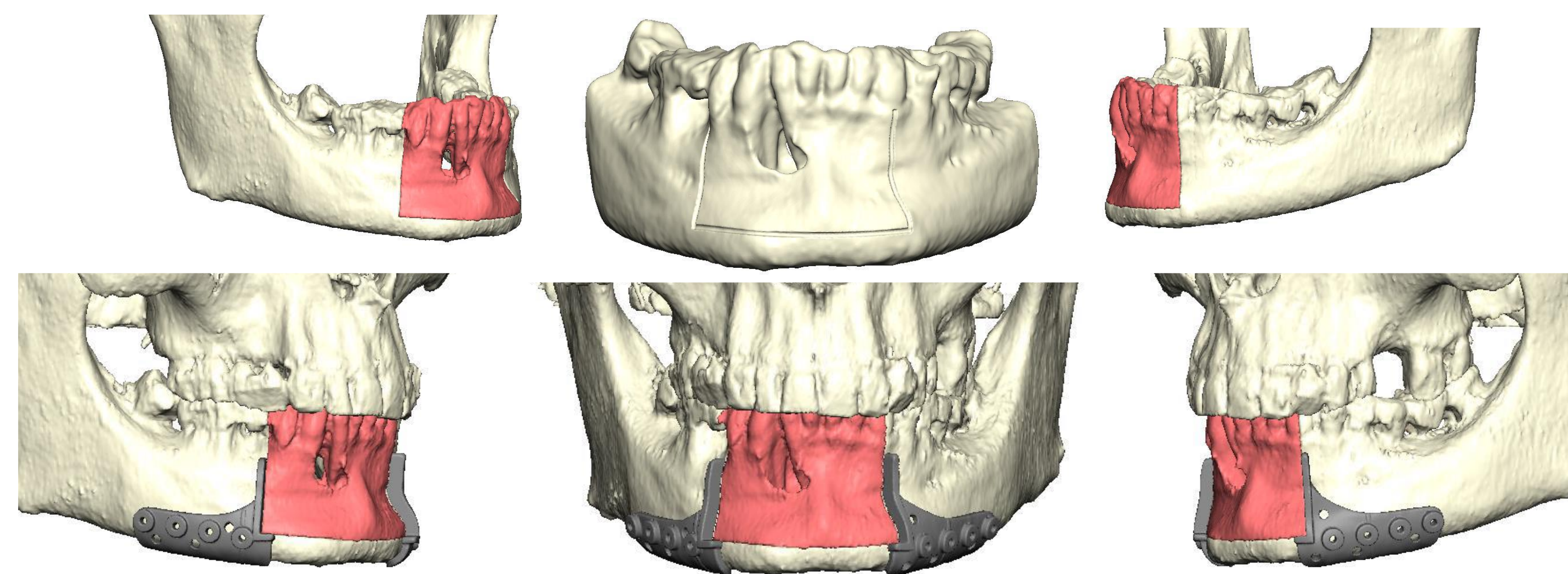
TREATMENT PLAN

Biopsy confirms the suspected diagnosis of Unicystic Ameloblastoma.

- Surgical Resection of the anterior mandibular region with a surgical reconstruction using anterior iliac crest bone graft/ BMP/ BMAC or allograft.
- Extraction of the all-mandibular teeth during the different surgical appointments.
- Post operative speech therapy.
- Prosthodontic Rehabilitation after surgical recovery.

VIRTUAL SURGICAL PLANNING (VSP)

- CBCT demonstrated that the lesion was confined within the anterior mandibular without the involvement of the rest of the maxillofacial regions.
- VSP was conducted for the resection of the anterior mandibular region with a safe margin of one centimeter around the lesion. Based on the size and location of the lesion, it was planned to preserve the significant portion of the inferior border of the mandible to assist the future prosthodontic treatment.



- A marginal mandibulectomy was performed while preserving the soft tissue cuff anatomic barrier around the ameloblastoma. To assist the future prosthodontic reconstruction, “Cayless” custom plates were fixated transorally while preserving the mental nerve.

- Reconstruction was performed with allograft BMP and BMAC according to UT Houston protocol.

- Following the surgery, the patient was referred to a speech therapist to optimize and improve speech and swallow function.

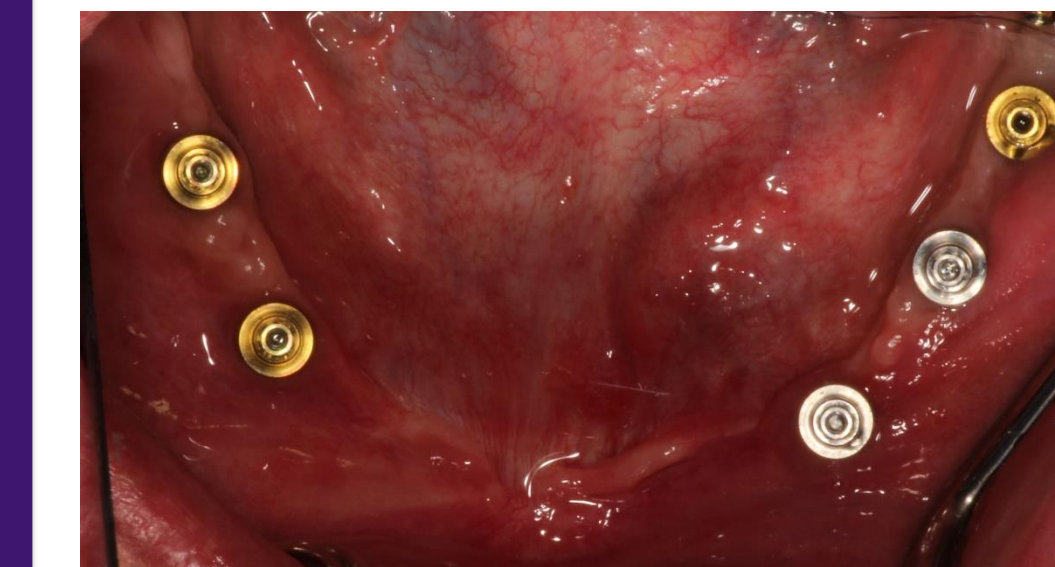


PROSTHODONTIC REHABILITATION

- It was decided to move forward with the removal of the remaining mandibular dentition and placement of mandibular implants for an implant-supported hybrid prosthesis.



- Following the extraction of #17 and 20, five implants were placed for #18, 19, 20, 28 and 30.



- After uneventful healing period of 4 months, abutment level impression was made in PVS.



- The cast was verified with a verification jig.

- Metal framework try-in was done intraorally.
- Metal- acrylic hybrid was delivered after occlusal adjustments.

- On 4 month follow-up visit, the patient presented with excellent hygiene maintenance, function and esthetics.



CONCLUSION

. In oral cancer patients such as ameloblastoma, prosthetic rehabilitation with implants improves patients' quality of life.

References

1. Torres-Lagares D, Infante-Cossio P, Hernández-Guisado JM, Gutiérrez-Pérez JL. Mandibular ameloblastoma. A review of the literature and presentation of six cases. Med Oral Patol Oral Cir Bucal. 2005;10:231-8.
2. Montoro JR, Tavares MG, Melo DH, Franco Rde L, Mello-Filho FV, Xavier SP, Trivellato AE, Lucas AS. Mandibular ameloblastoma treated by bone resection and immediate reconstruction. Braz J Otorhinolaryngol. 2008 Jan-Feb;74(1):155-7.
3. Adekeye EO, Lavery KM. Recurrent ameloblastoma of the maxillo-facial region. Clinical features and treatment. J Maxillofac Surg. 1986;14:153-7.
4. Bataineh AB. Effect of preservation of the inferior and posterior borders on recurrence of ameloblastomas of the mandible. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2000; 90:155-63.
5. Foster RD, Anthony JP, Sharma A, Pogrel MA. Vascularized bone flap versus nonvascularized bone grafts for mandibular reconstruction: an outcome analysis of primary bony union and endosseous implant success. Head Neck 1999;21:66-71.