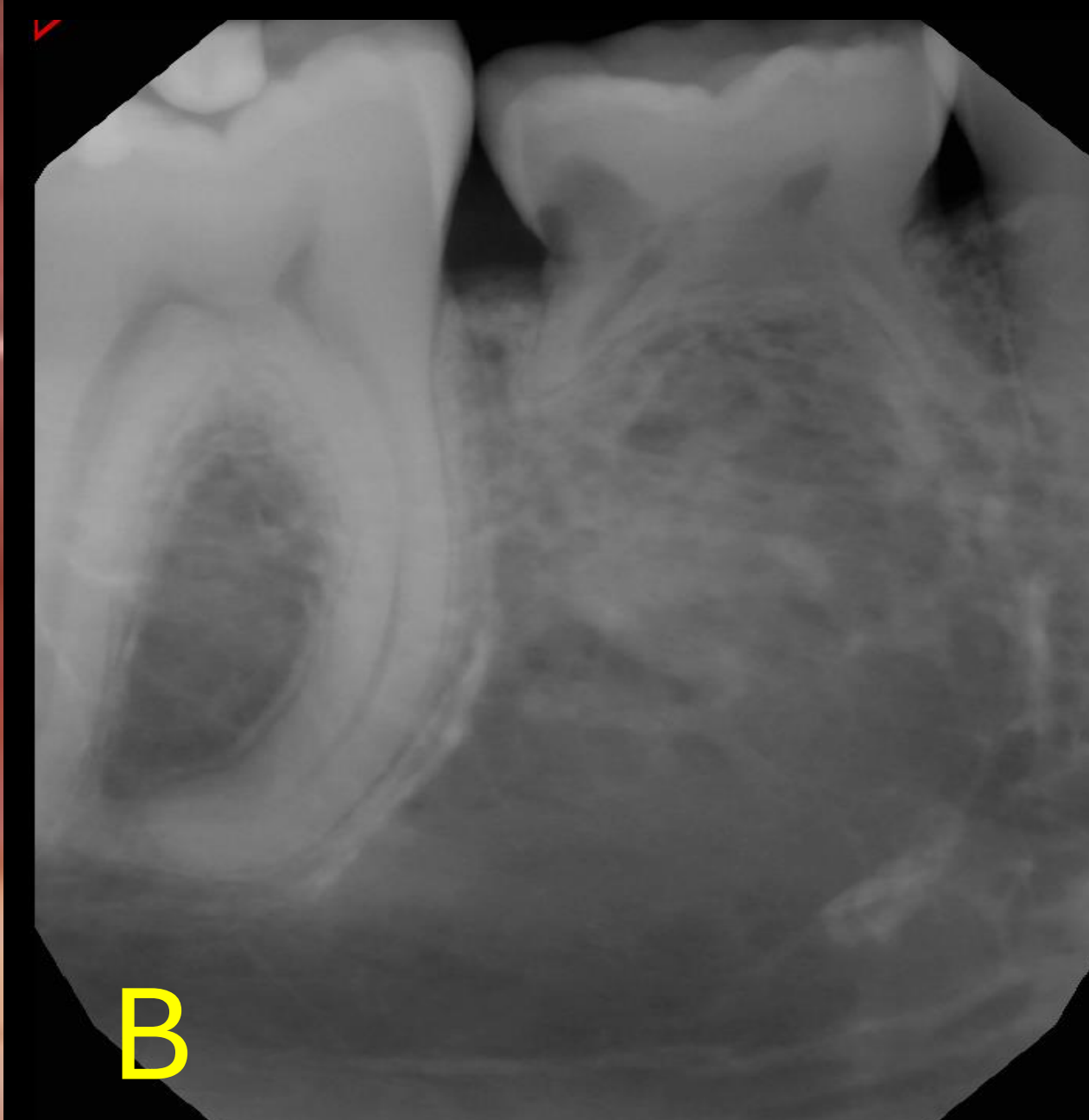


INTRODUCTION

CBCT provides two-dimensional and 3D images that are detailed with high resolution. These images provide a different perspective on assessing the needs of patients in comparison to the two-dimensional image. The resolution of CBCT scans is used to view large structures in both the maxillary and mandibular arches and for complex dental tooth anatomy. However, while it is advantageous to view anatomical features provided by high resolution of CBCT, the chances of discovering incidental findings equally increase.

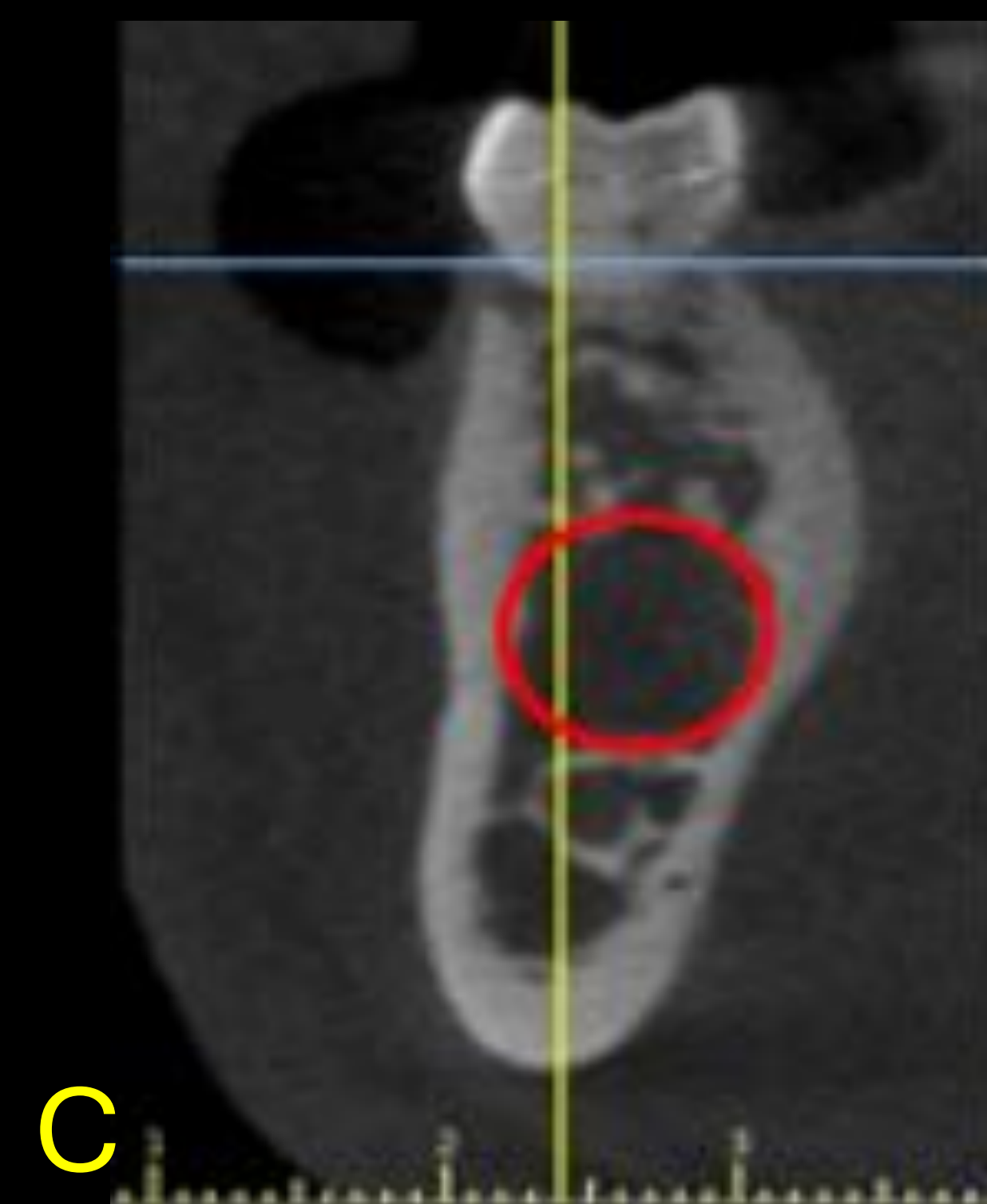
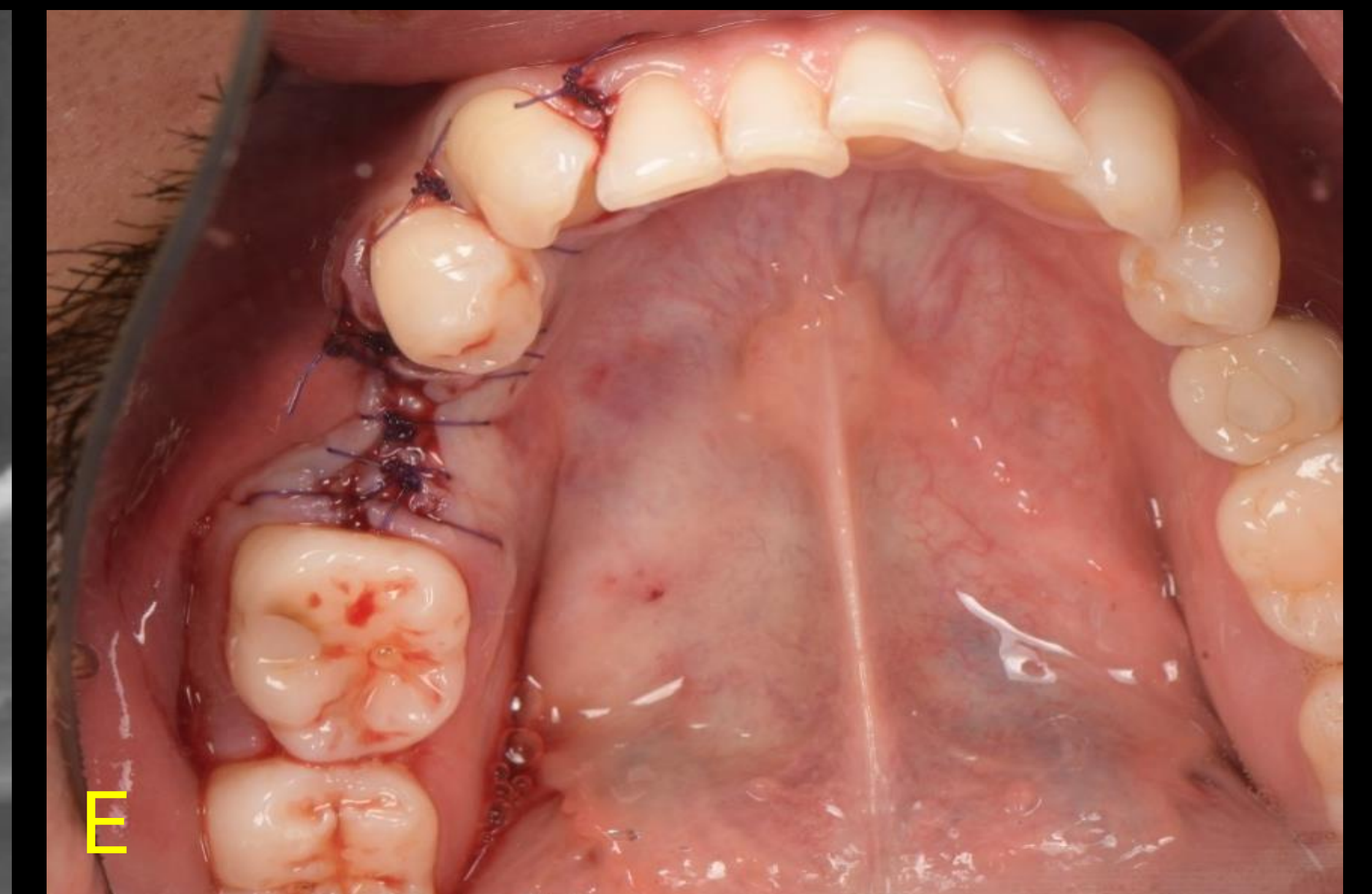
CASE REPORT

A 28-year-old male patient with no significant past medical history was referred for extraction of mobile lower right deciduous molar “L” (A-B) and possible immediate implant. Past dental history revealed previous dental visits for extraction of lower left deciduous molar ‘S’ and implant placement. Intraoral oral examination revealed oral hygiene with clinically normal hard and soft intraoral tissues.

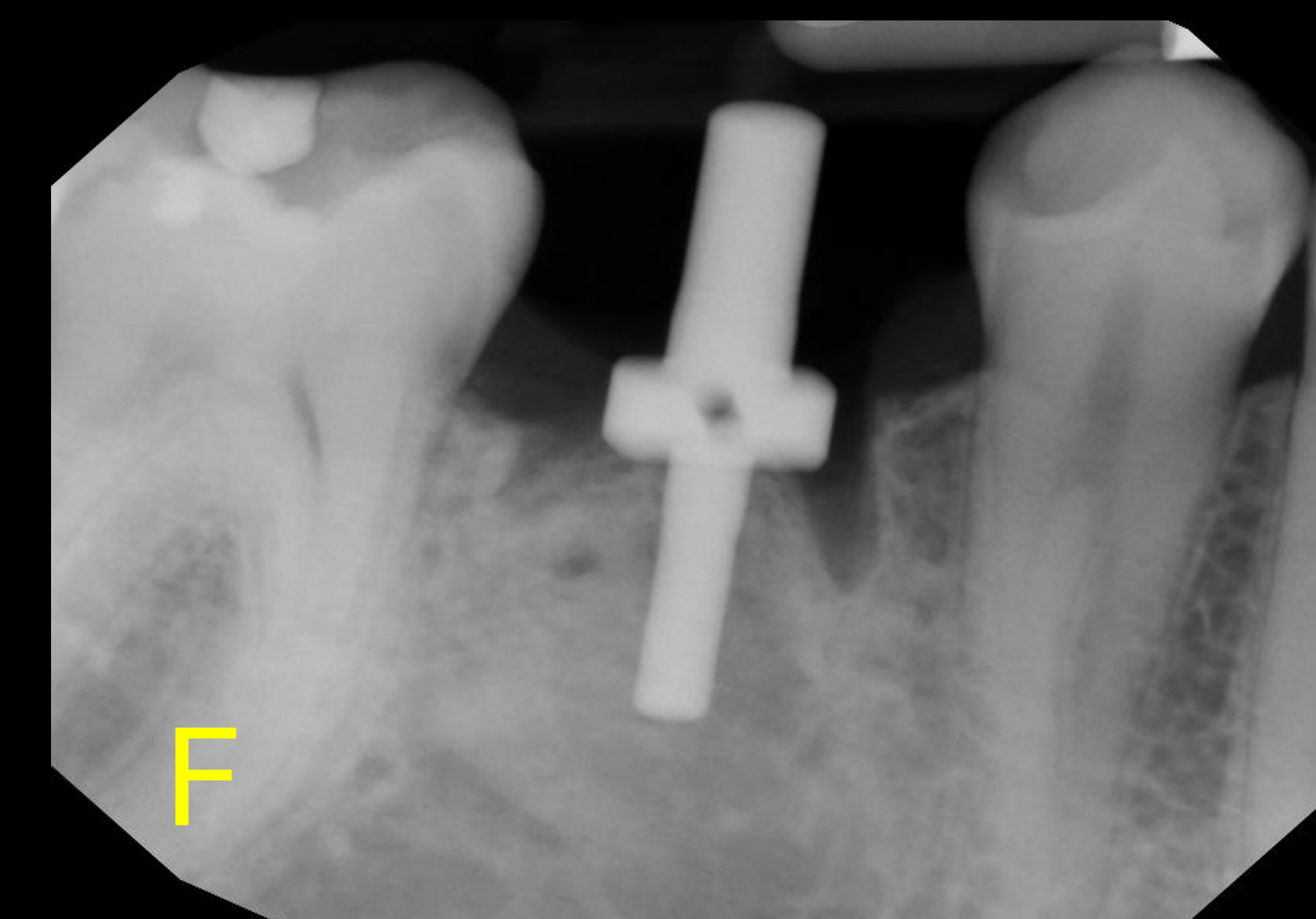
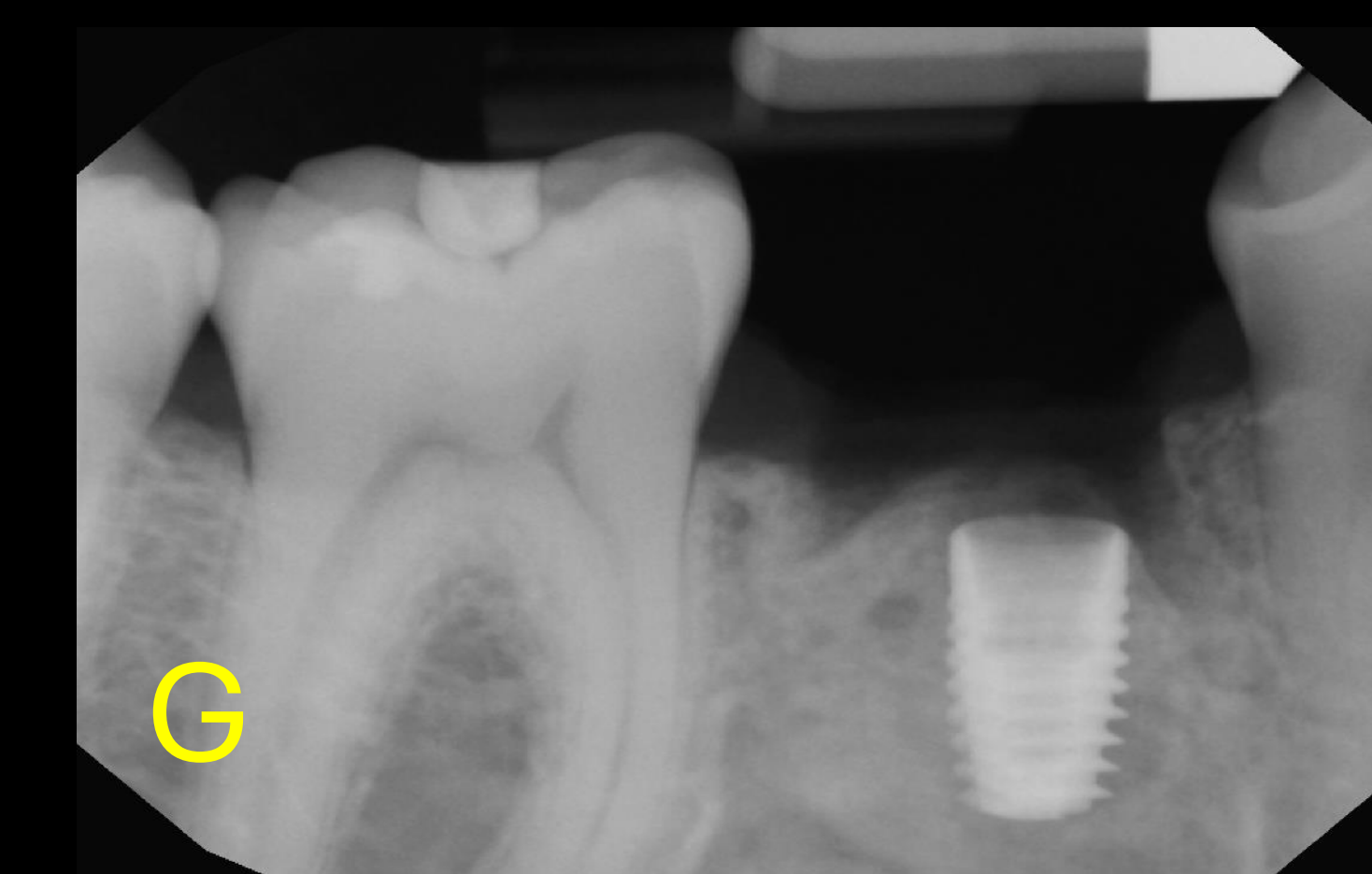
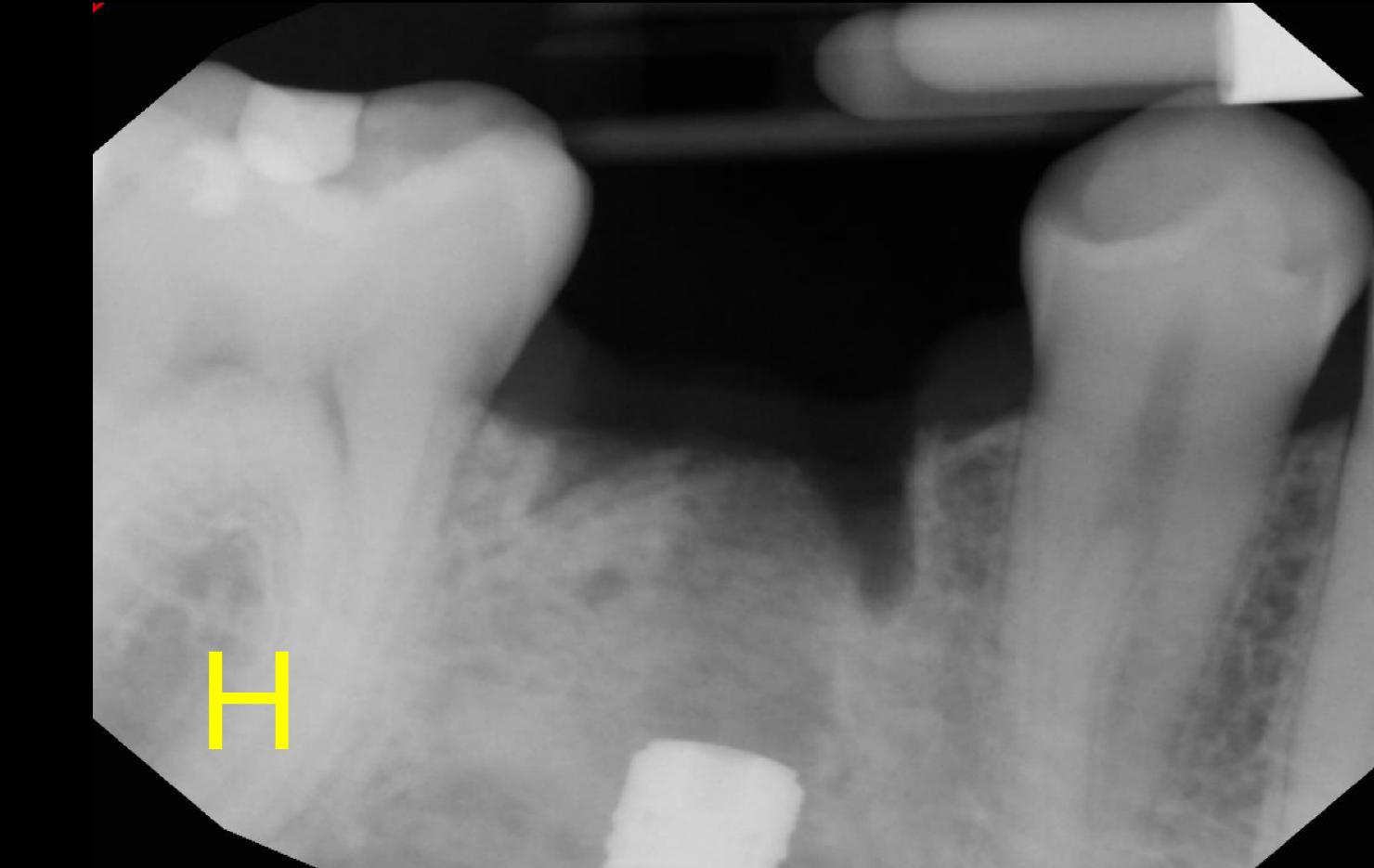
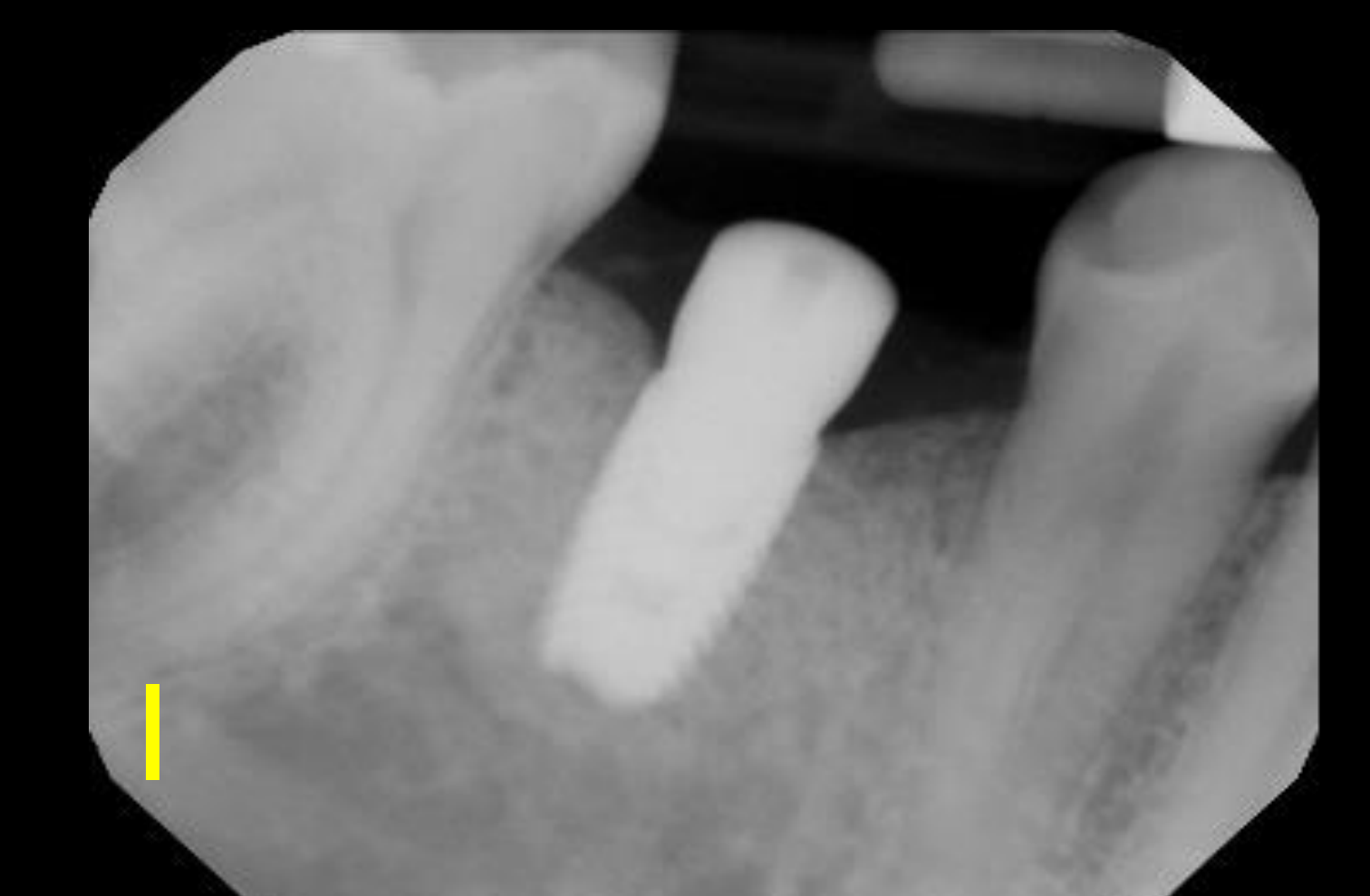


CLINICAL RELEVANCE

An incidental finding of an enlarged marrow space in the right mandible during implant planning and implant placement was revealed on the CBCT (C-D). Although an enlarged marrow space in the mandible or maxilla can signify various underlying conditions, however, accurate diagnosis typically requires correlating radiographic findings with clinical examinations, patient history, and possibly additional imaging.



Periapical radiographs showed the enlarged marrow space engulfed the implant during implant placement (F-H) which required immediate removal of the implant and socket preservation with bone graft (E). Final Implant placement was performed after 4 months of bone regeneration (I).



CONCLUSION

The importance of a thorough review of the entire tomographic image volume of CBCT using advanced technology for treatment planning creates new responsibilities and places more liability on providers not to overlook findings that may be significant to the patient's health.

REFERENCES

Dief S, Veitz-Keenan A, Amintavakoli N, McGowan R. A systematic review on incidental findings in cone beam computed tomography (CBCT) scans. Dentomaxillofac Radiol. 2019 Oct;48(7):20180396