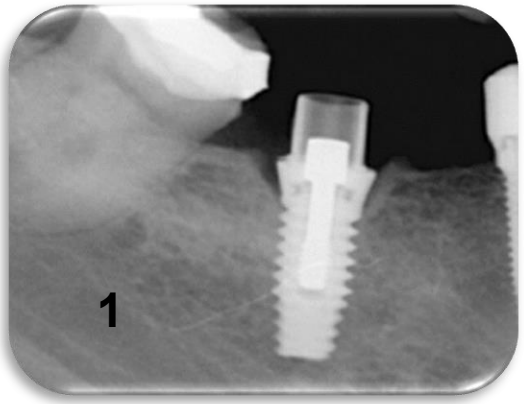
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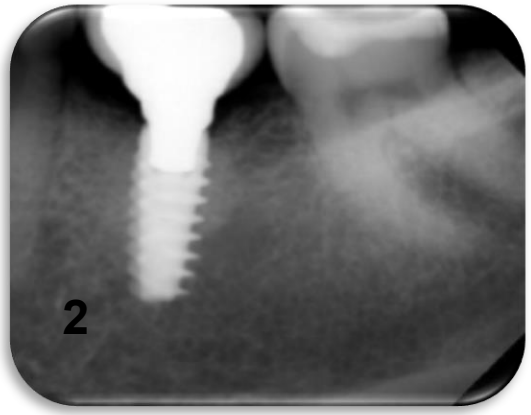
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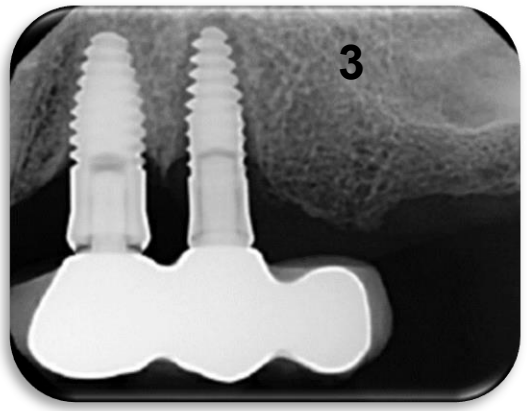
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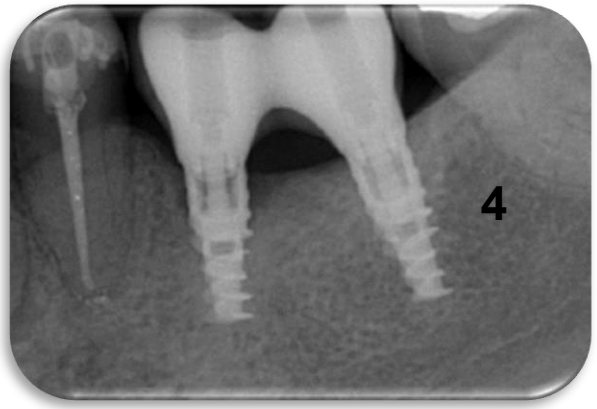
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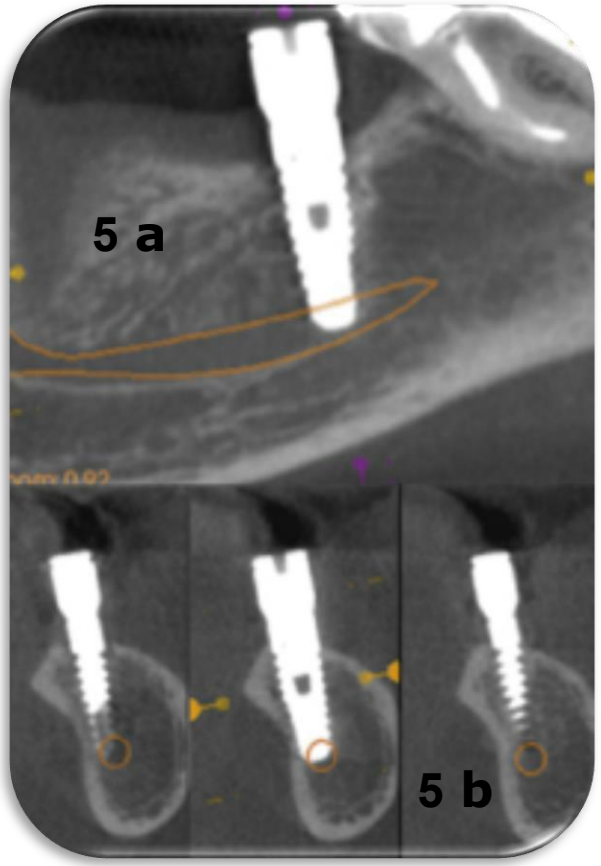
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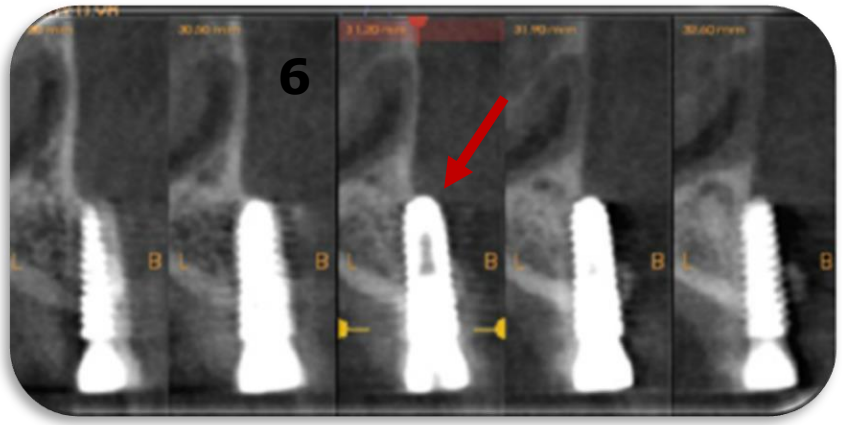
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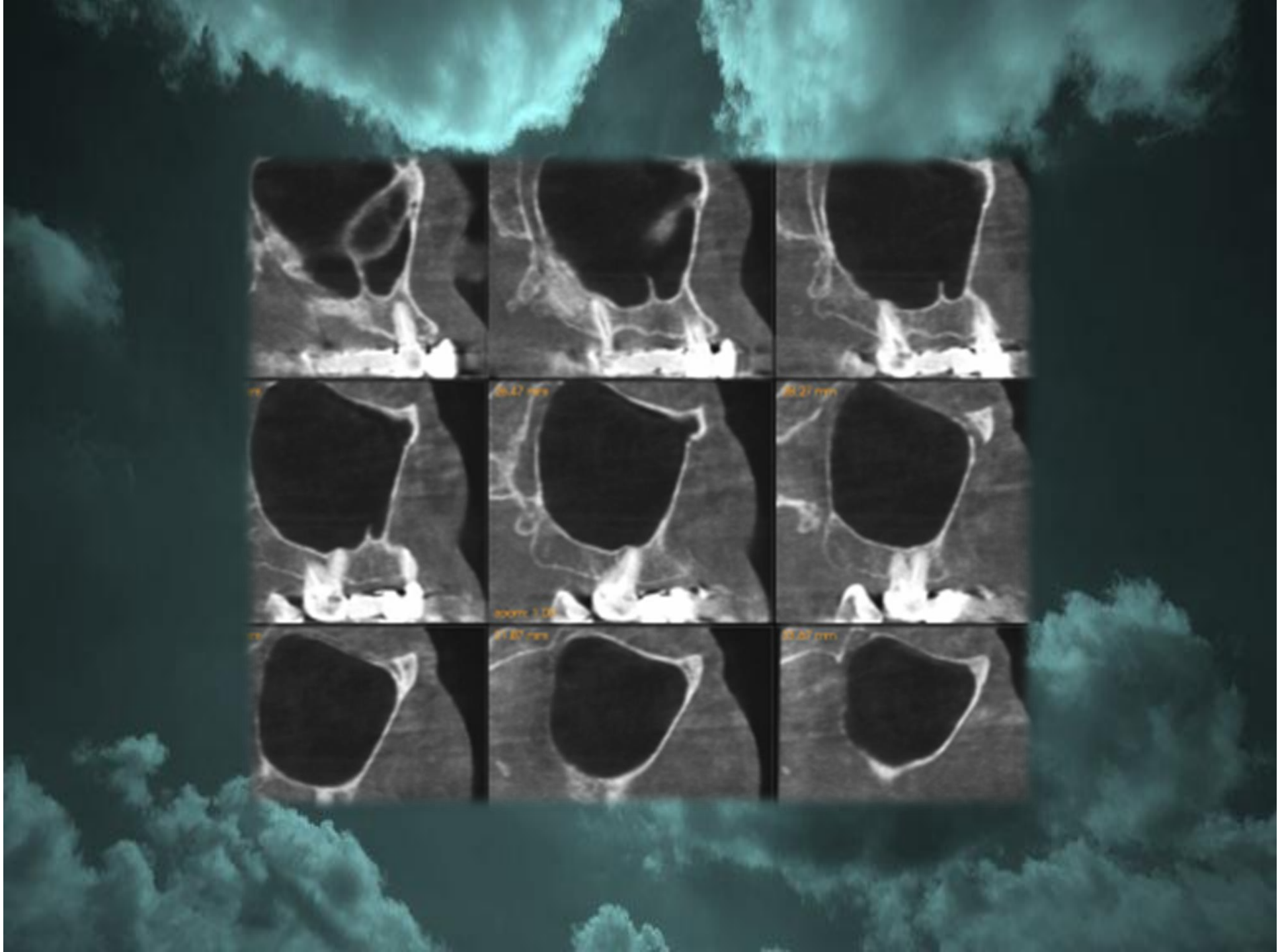


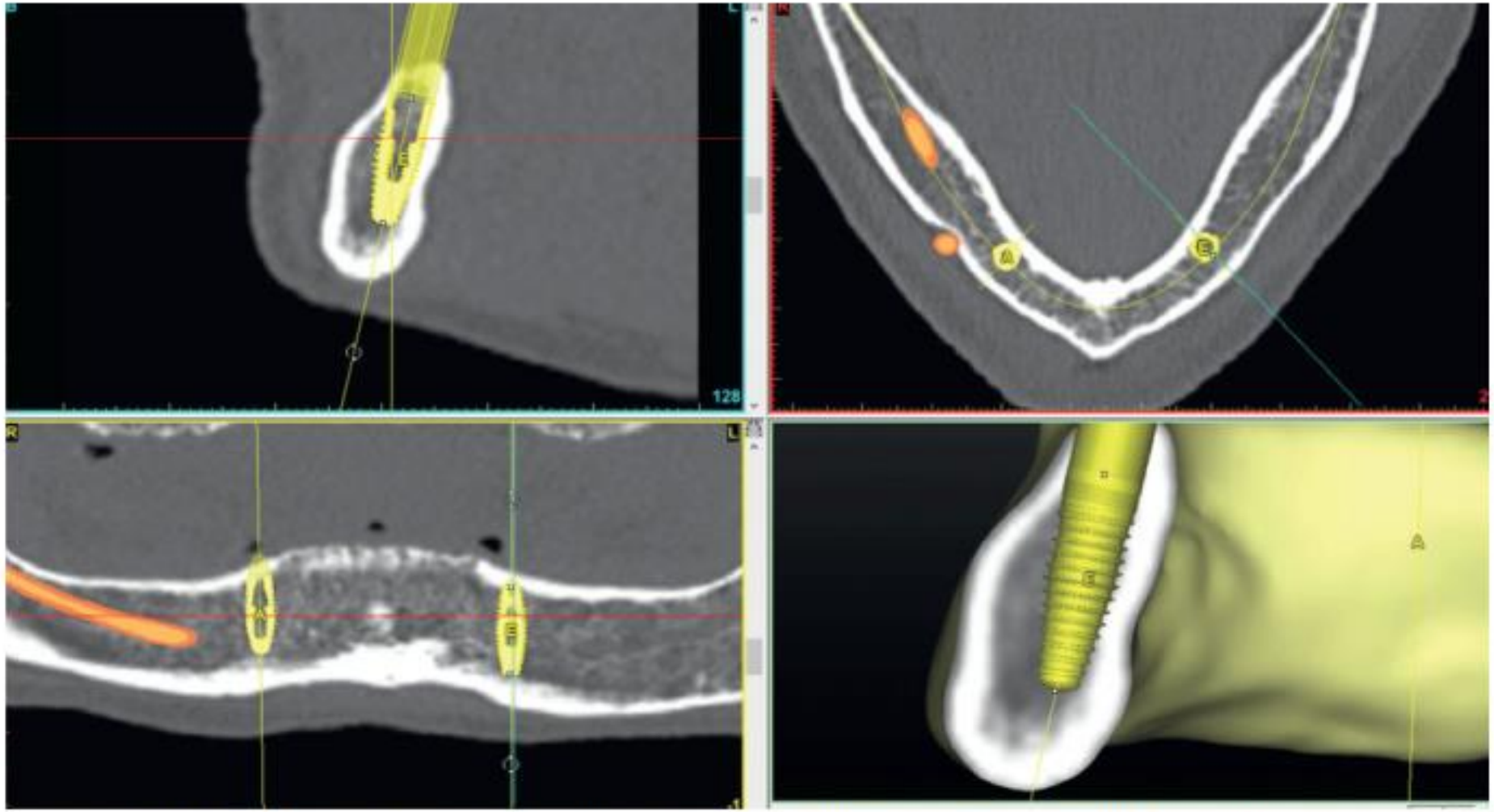


FIG 3.17 The anterior mandible has the greatest bone height of any region of the jaws. However, because of the variable osseous angulation in the anterior mandible, the implant often engages the lingual plate of bone.

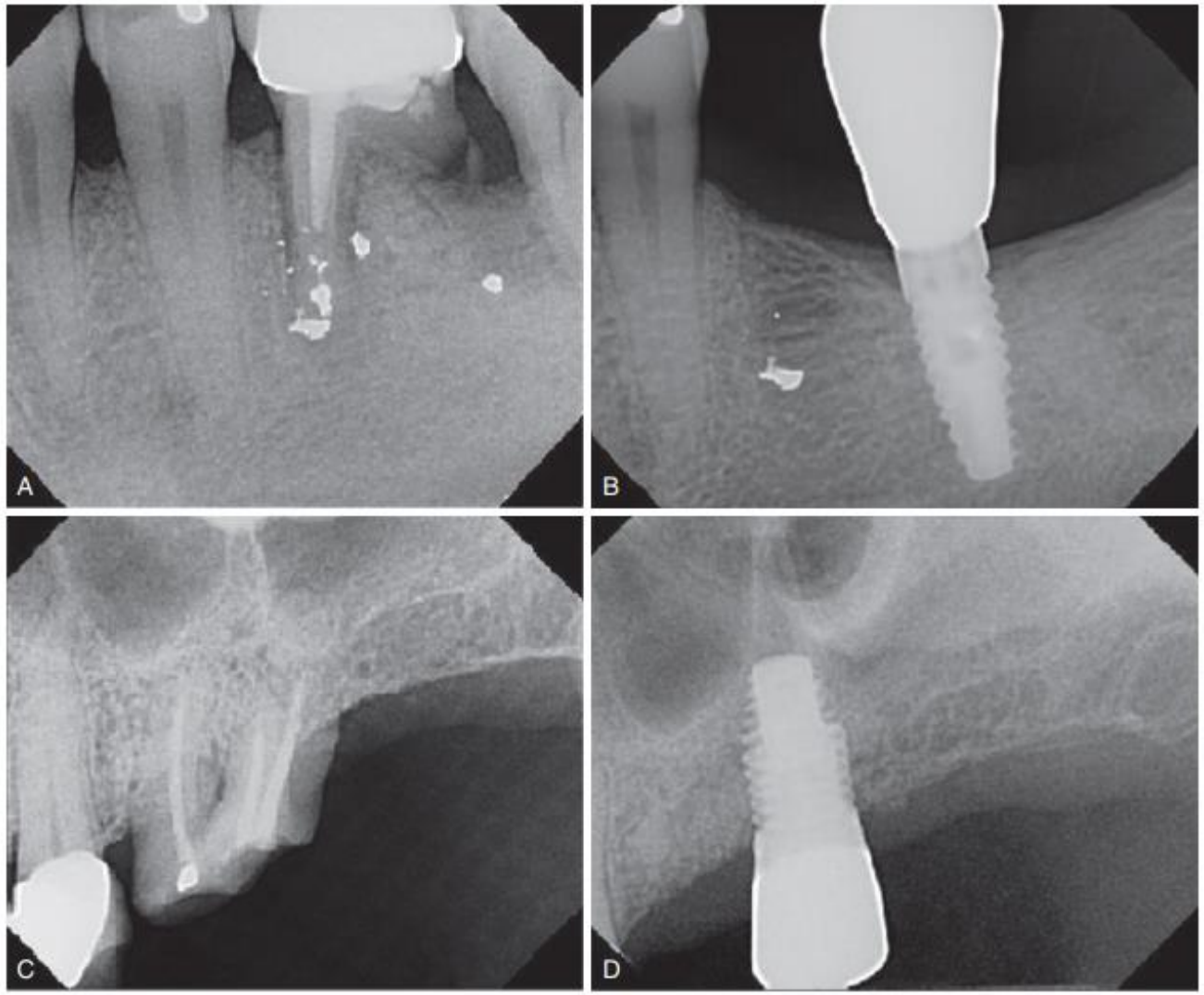


FIG 14.20 Implant malposition following immediate implant placement for a first molar. (A–B) Mandibular implant placement too far distal. (C–D) Maxillary implant placement too far distal. (C) Preoperative of non-restorable molar, (D) Implant improper placement resulting in placement too far posterior.

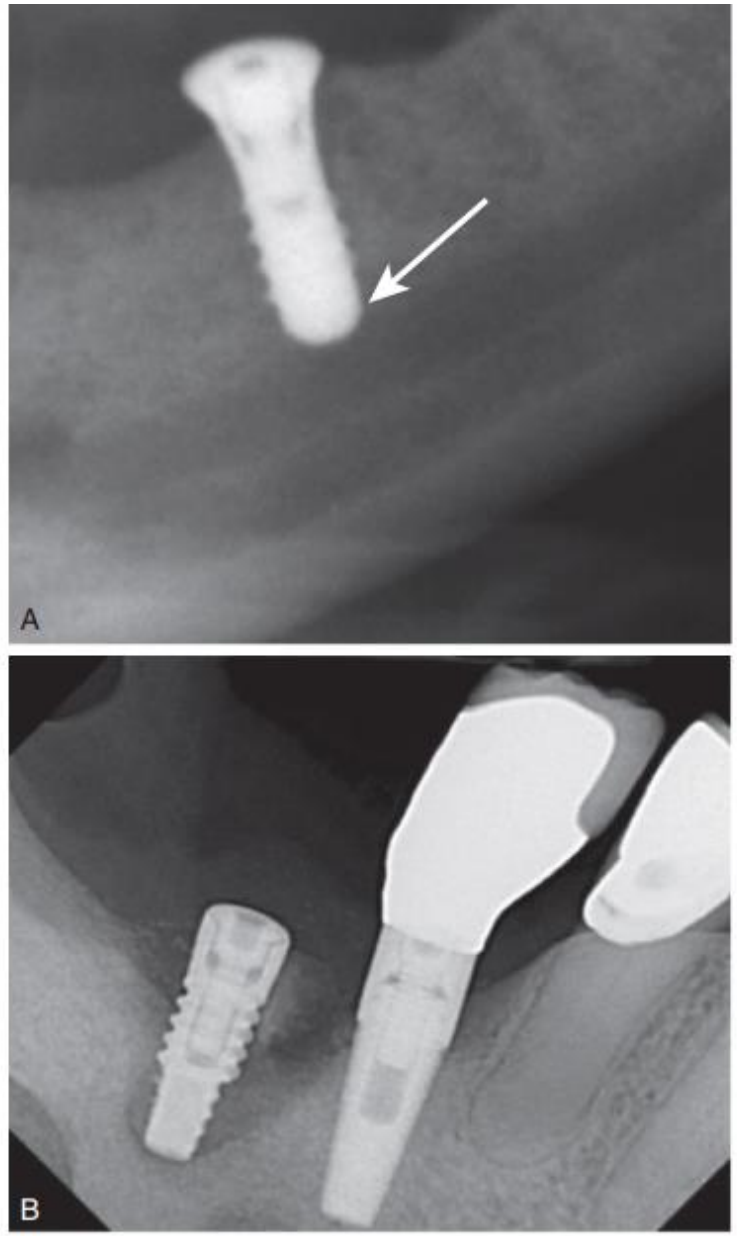


FIG 10.17 Chronic neuropathic pain most commonly occurs when implants are placed in close approximation to vital structures. (A) Inferior alveolar nerve *(arrow)*. (B) Failing implant that may cause chronic severe pain.

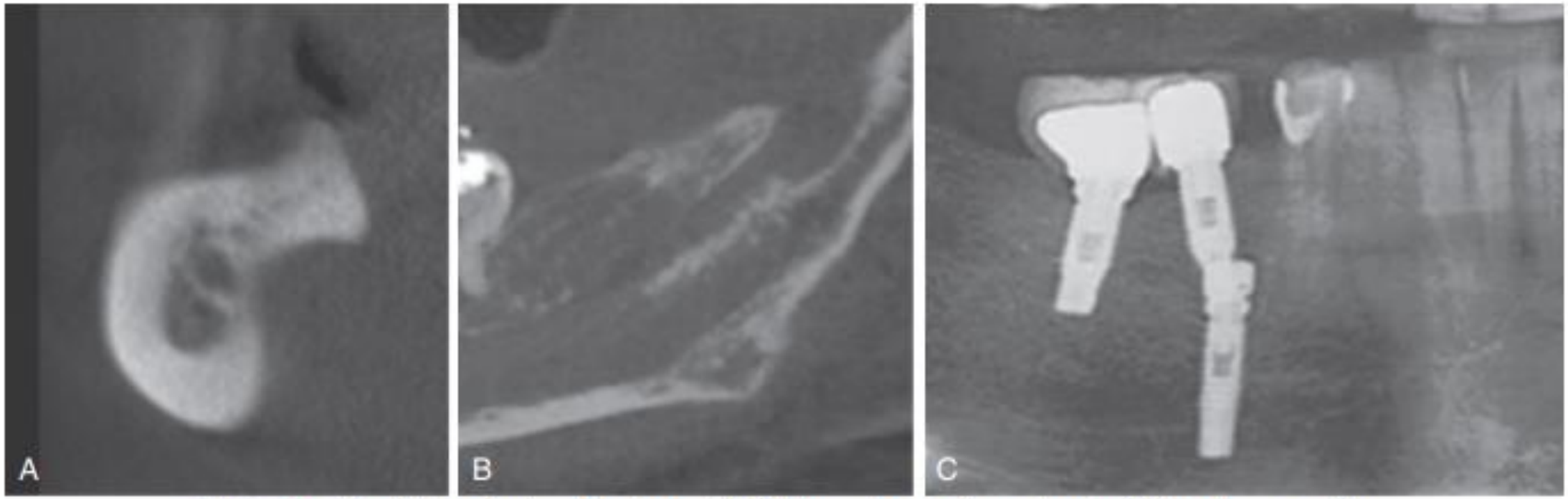


FIG 10.31 Mandibular displaced implants. (A) Sublingual posterior undercut. (B) Poor bone quality (marrow spaces). (C) Mandibular implant displaced into sublingual space.

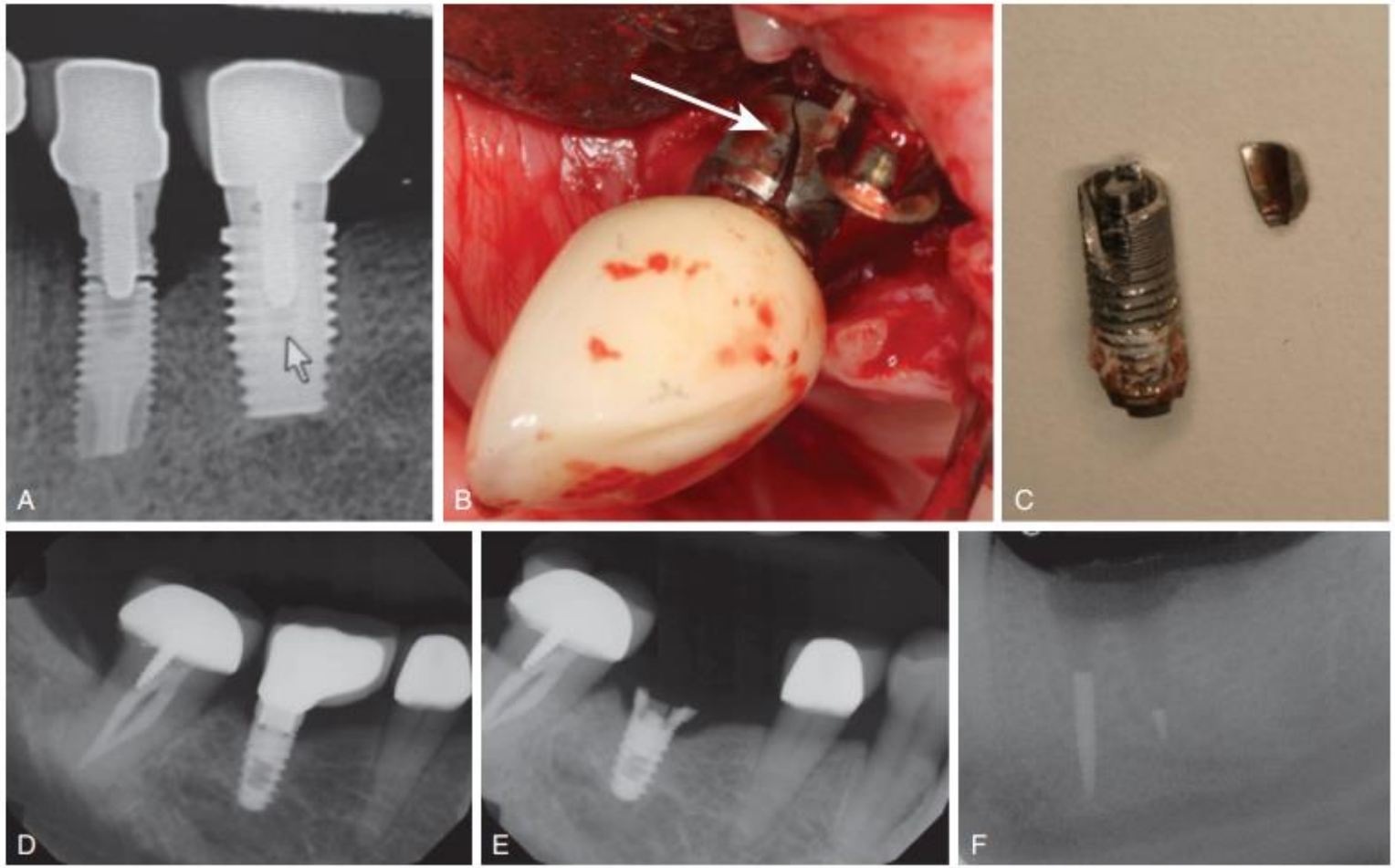


FIG 10.18 Fractured implant. (A) Implant body fracture. (B–C) Implant neck fracture. (D) Small diameter implant placed in a nonideal position, note mesial cantilever. (E) Because of small diameter implant, presence of mesial cantilever, internal hex neck fracture. (F) Two mini-implants fractured in the posterior mandible in close proximity to the mandibular canal.

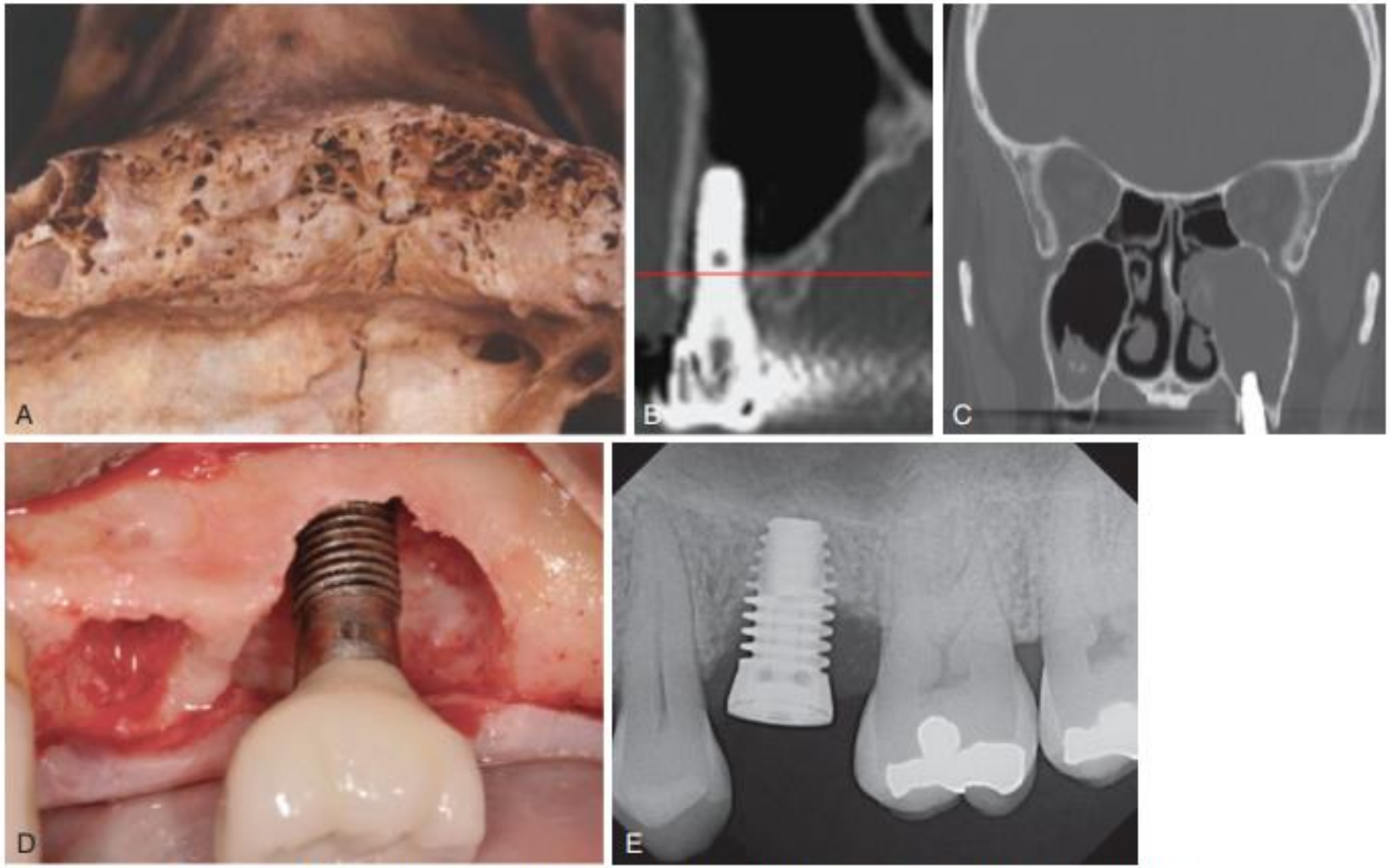


FIG 10.29 Etiology of displaced/migrated implants. (A) Poor bone quality (~D4). (B) Implant placement without bone graft. (C) Autoimmune/rhinosinusitis. (D) Peri-implantitis. (E) Implant with minimal surrounding bone that may lead to migration into the sinus cavity.

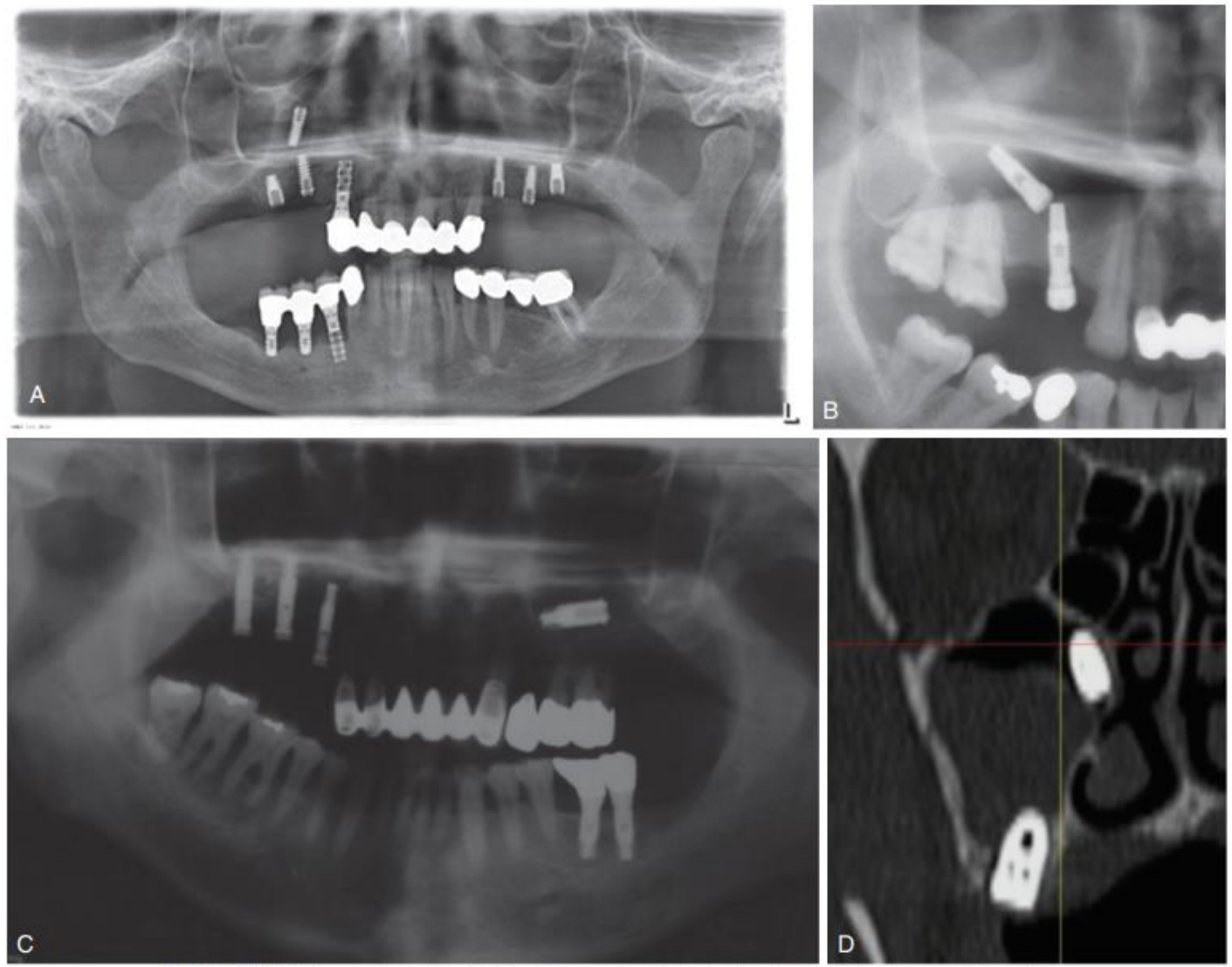


FIG 10.24 Maxillary sinus. (A–C) Displacement of dental implants into the maxillary sinus. (D) Displacement into the maxillary ostium causing nonpatency.

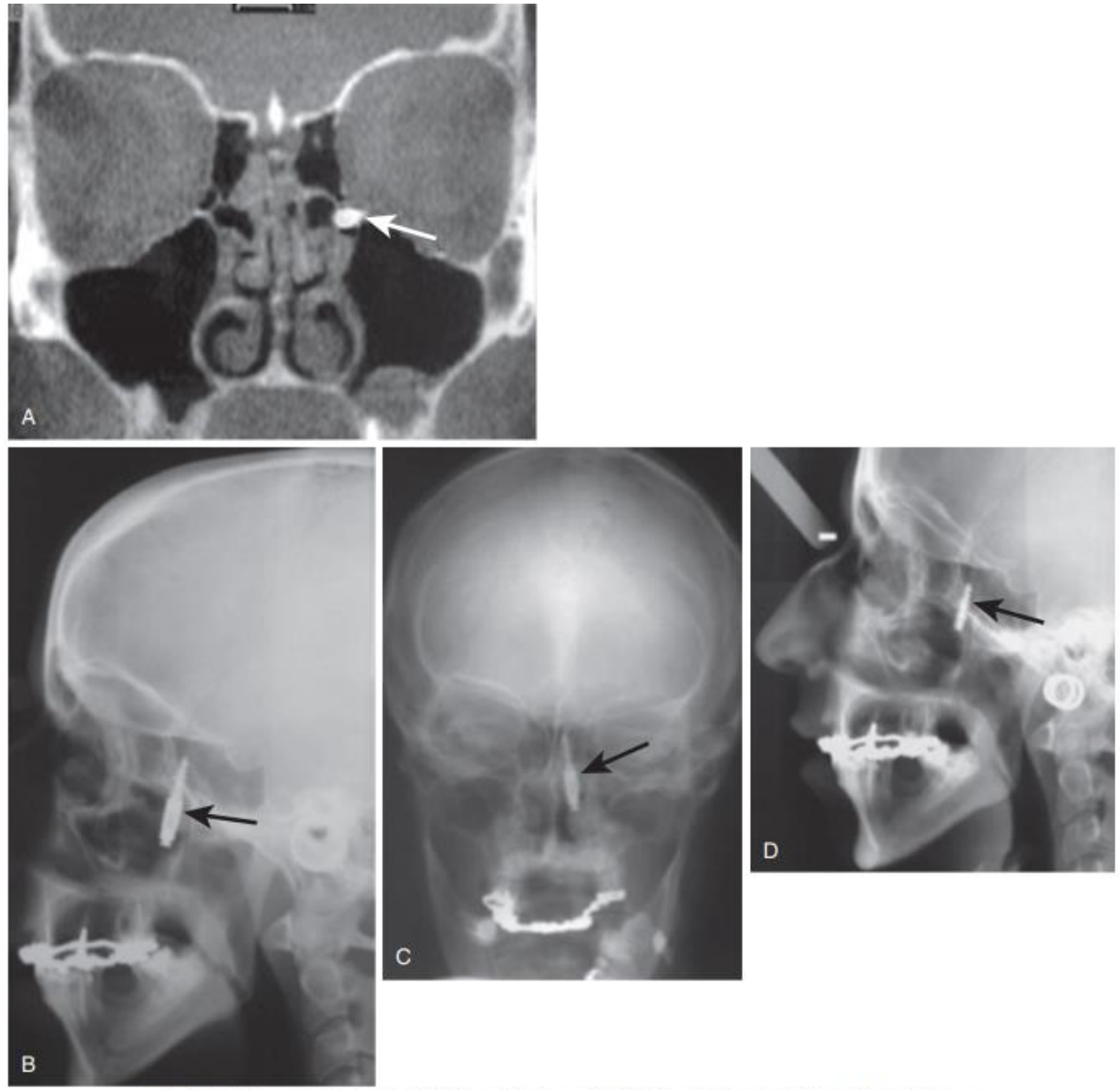


FIG 10.26 Migrated implants. (A) Ethmoid sinus. (B–D) Migrated implant into sphenoid sinus. (A, From Haben M, Balys R, Frenkiel S: Dental implant migration into the ethmoid sinus, *J Otolaryngol* 32:342–344, 2003; B–D, From Felisati G, Lozza P, Chiapasco M, et al: Endoscopic removal of an unusual foreign body in the sphenoid sinus: an oral implant, *Clin Oral Implants*

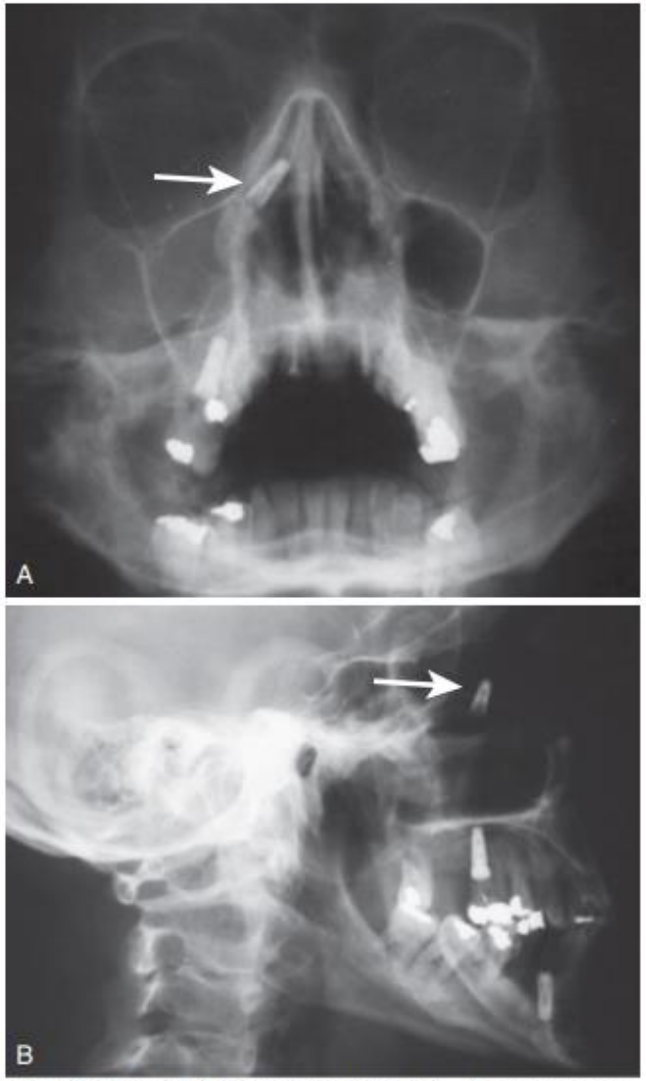


FIG 10.27 (A–B) Migrated implants into the orbital area. (From Griffa A, Viterbo S, Boffano P: Endoscopic-assisted removal of an intraorbital dislocated dental implant, *Clin Oral Implants Res* 21:778–780, 2010.)

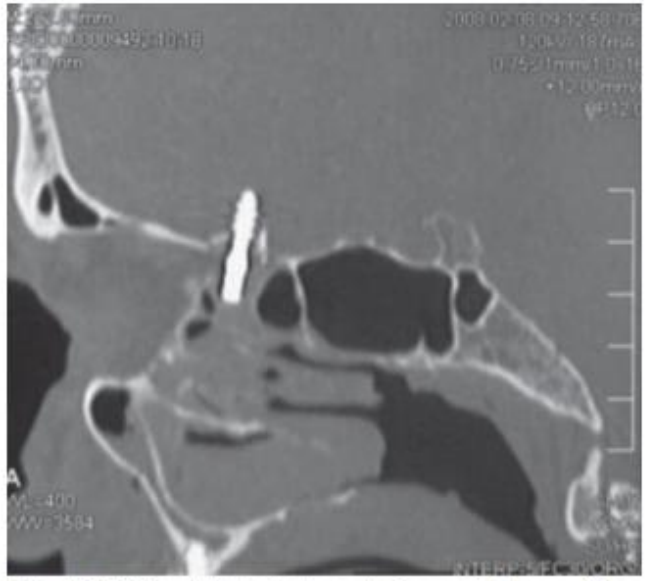


FIG 10.28 Migrated implants anterior cranial base. (From Cascone P, et al: A dental implant in the anterior cranial fossae, *Int J Oral Maxillofac Surg* 39:92–93, 2010.)

overpreparation of the osteotomy site will result. Because of the overpreparation, there will be insufficient bone at the crestal level to maintain rigid fixation and migration may occur. Therefore, underpreparation or the use of osteotomes should be utilized when preparing osteotomies in these compromised areas.

Implant Placement Without Bone Graft. Treatment planning in the posterior maxilla should coincide with the Misch sinus augmentation protocol (SA-1–SA-4). For an implant to be placed without bone grafting, a minimum of 8–10 mm is required. Less than 8 mm of bone will predispose the implant to lack of rigid fixation and the possibility of mobility or migration. For the implant to be placed with bone grafting, a minimum of 5 mm of host bone is required for initial fixation. Under-preparation of the osteotomy site is recommended to

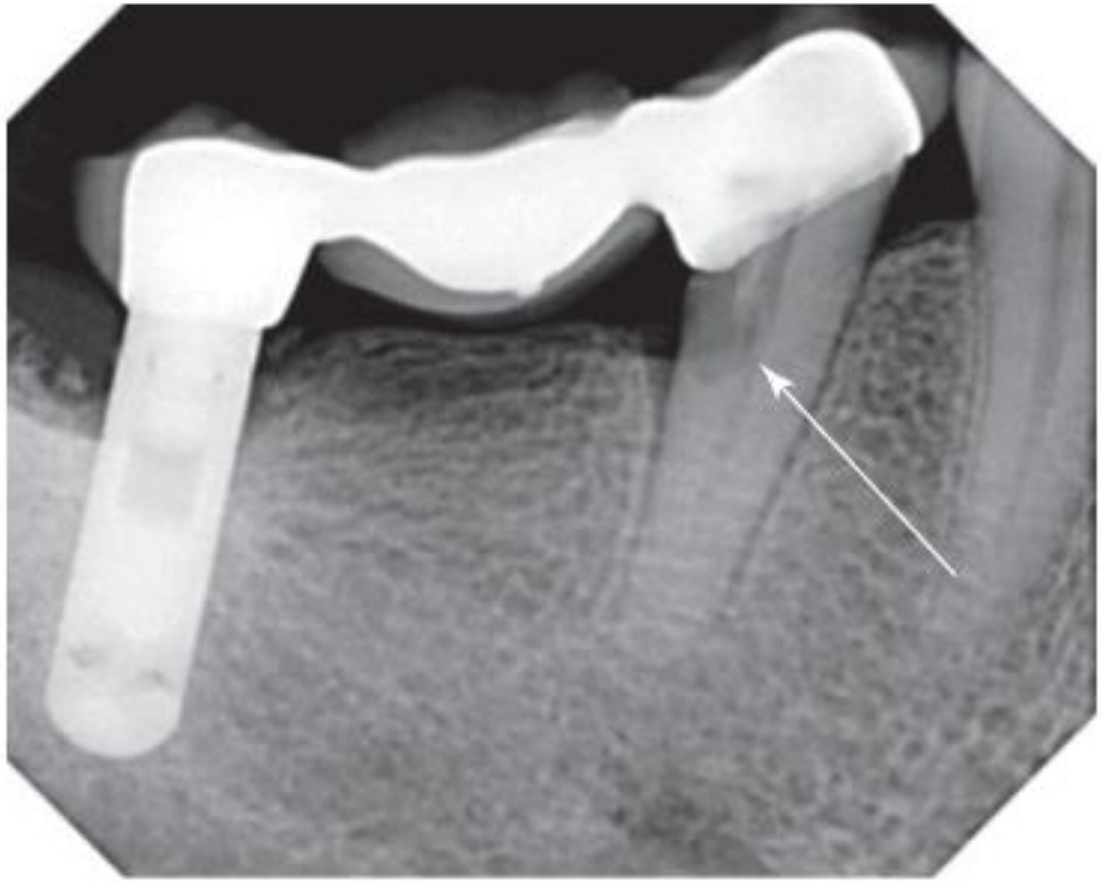


FIG 3.128 Clinical image of tooth-implant showing failure because of recurrent decay.

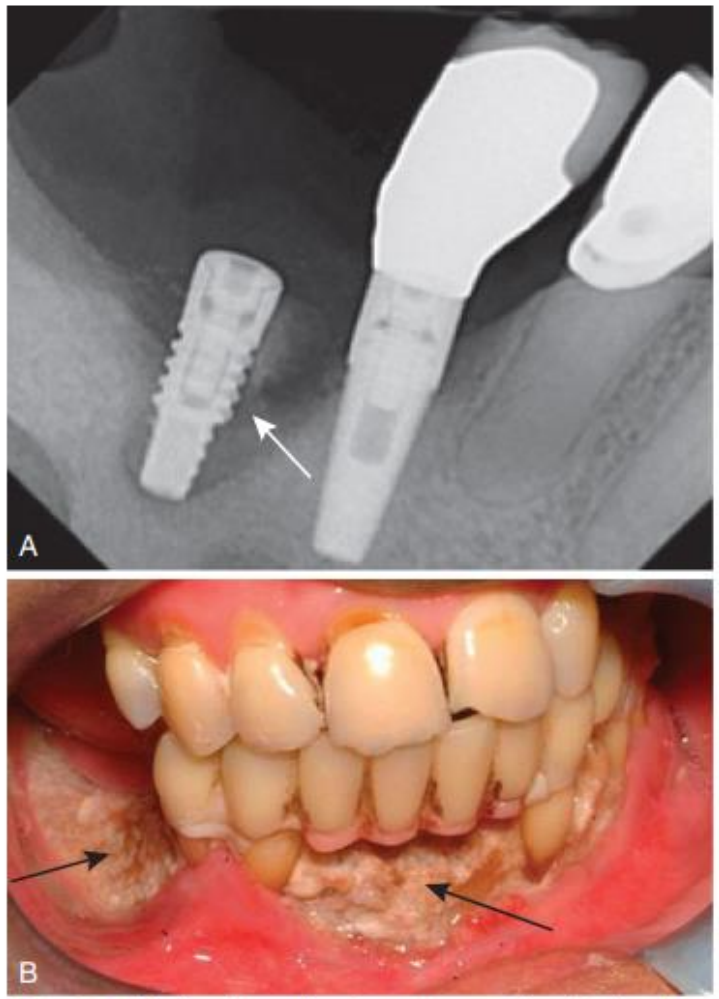


FIG 8.14 Medication related osteonecrosis of the jaws (MRONJ). (A) Implant related MRONJ. (B) Multiple areas of nonhealing exposed bone. (B, From Marx RE: Bone and bone graft healing. *Oral Maxillofac Surg Clin North Am* 466, 2007.)

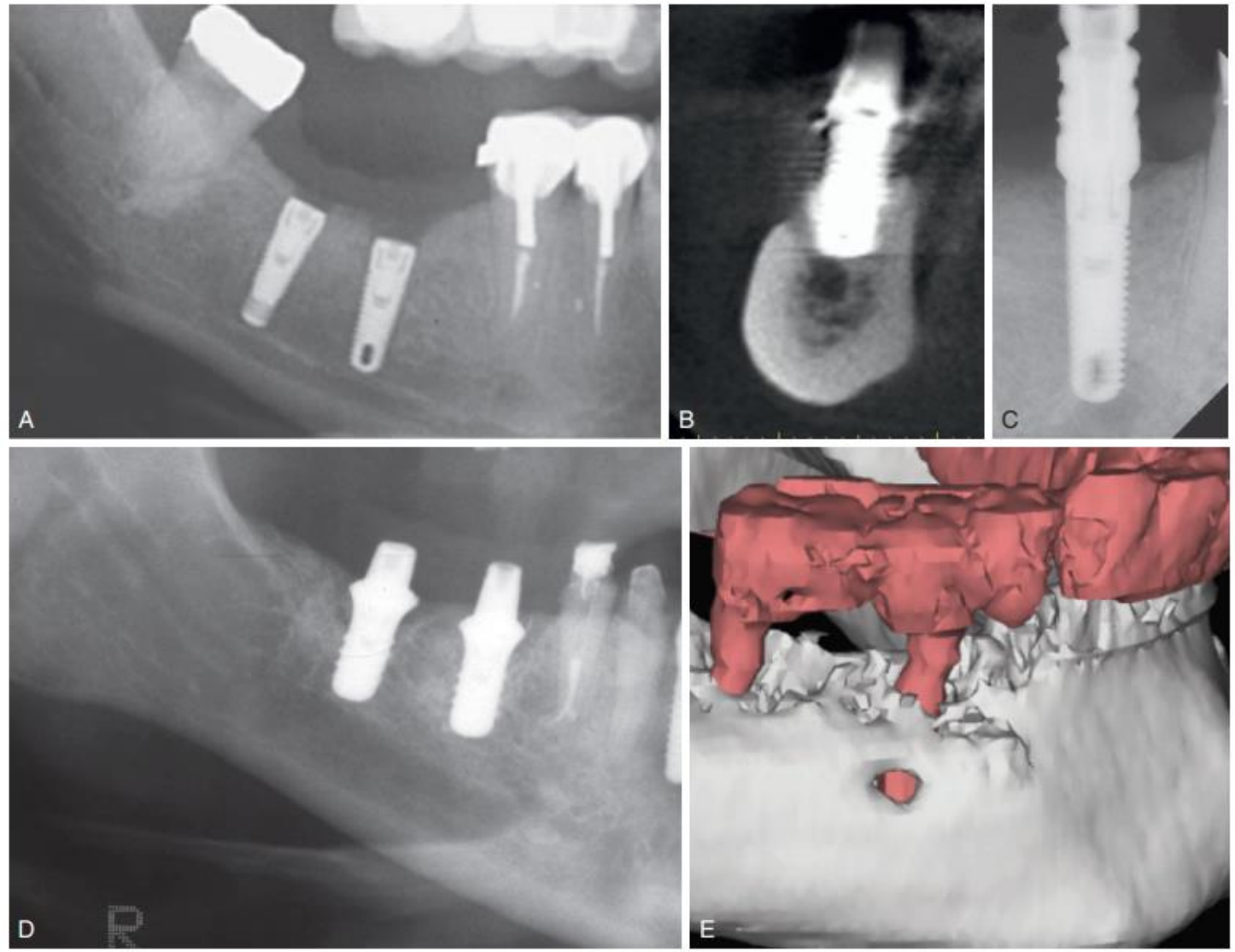


FIG 9.1 Neurosensory impairment of the inferior alveolar nerve. (A) Placement of two implants, completely transecting the mandibular canal. (B–C) Implant placement impinging on the mental foramen. (D) Immediate placement implant after premolar extraction causing nerve impairment. (E) CBCT image depicting implant placement through mandibular canal.

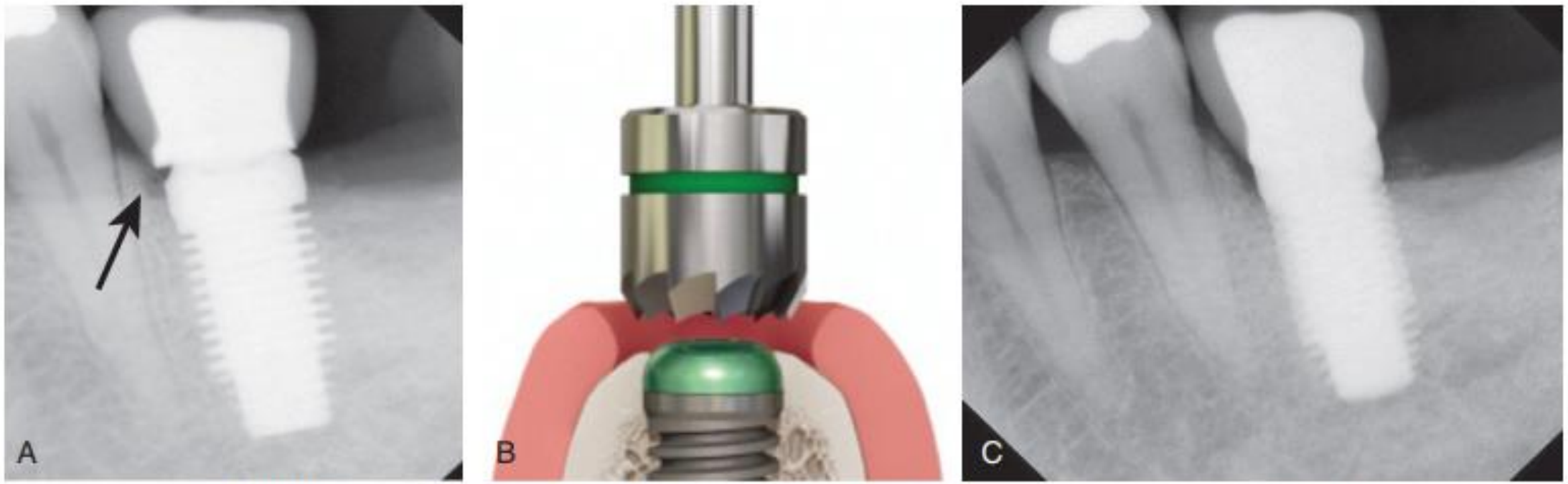


FIG 10.16 Bone impingement. (A) Mesial bone *(arrow)* preventing crown from complete seating. (B) End-cutting profiling bur is used to remove bone. (C) Removal of bone, complete seating of crown.

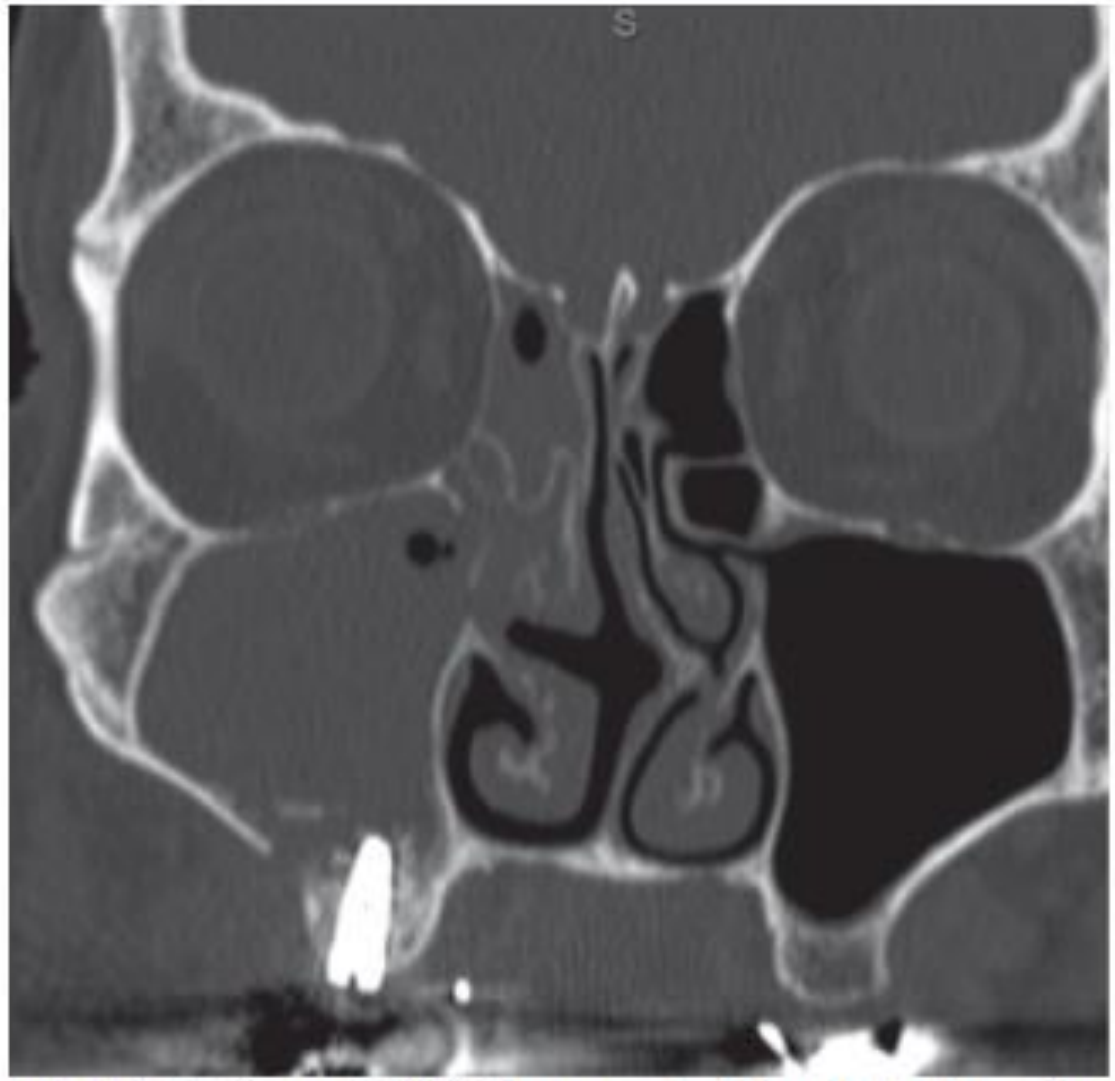


FIG 13.49 Coronal CBCT image depicting infection after implant placement and sinus graft (SA-3 Immediate).

FIG 18.49 (A) Implants in group IV represent clinical failure and implants no longer in the mouth. The center implant in this radiograph is an implant with more than 50% loss; it is category IV. (B) The implant should be removed when group IV exudates are present. (C) The implant is removed from the site. The implant now is converted to group V (absolute failure). (D) The prosthesis is modified to become a three-unit fixed partial denture. (From Misch CE: *Dental implant prosthetics,* ed 2, St Louis, 2015, Mosby.)

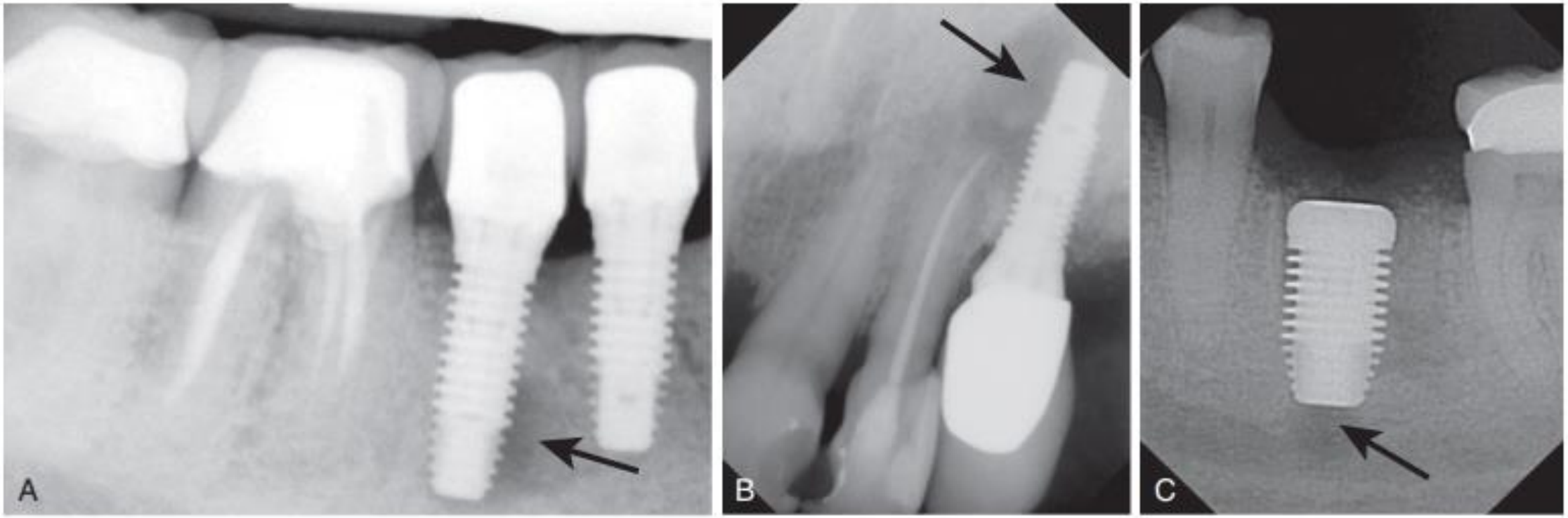
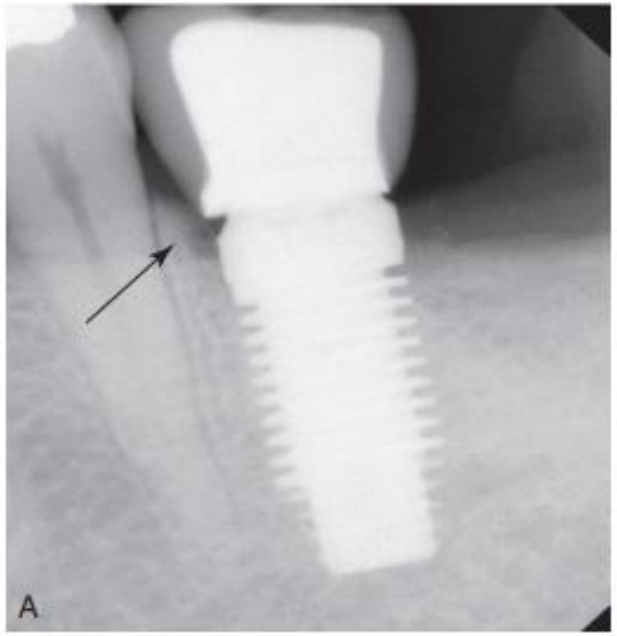


FIG 10.9 Retrograde periapical lesion. (A–B) Apical pathology on integrated dental implants. (C) Apical radiolucency from osteotomy preparation exceeding implant length.



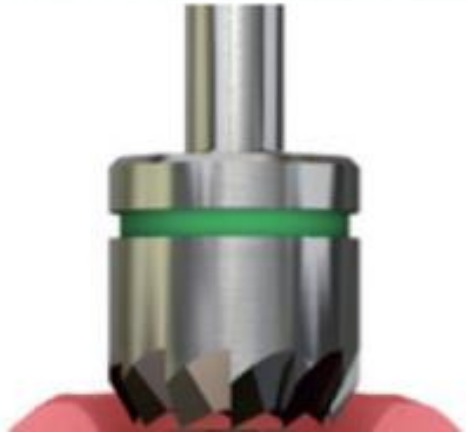


FIG 16.75 Pathology associated with a failed dental implant. Note the circumferential radiolucency.

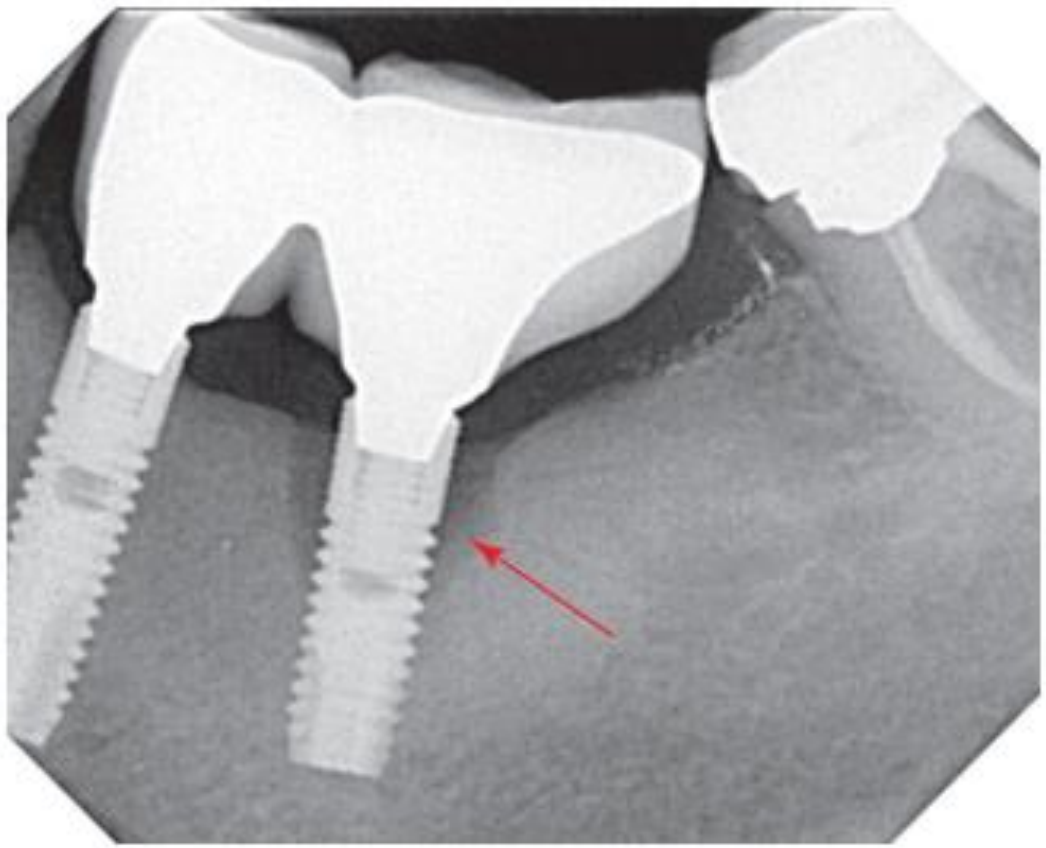


FIG 17.6 Implant exhibiting bone loss from excessive force. Note the high cusps and concavity for the maxillary plunging cusp.

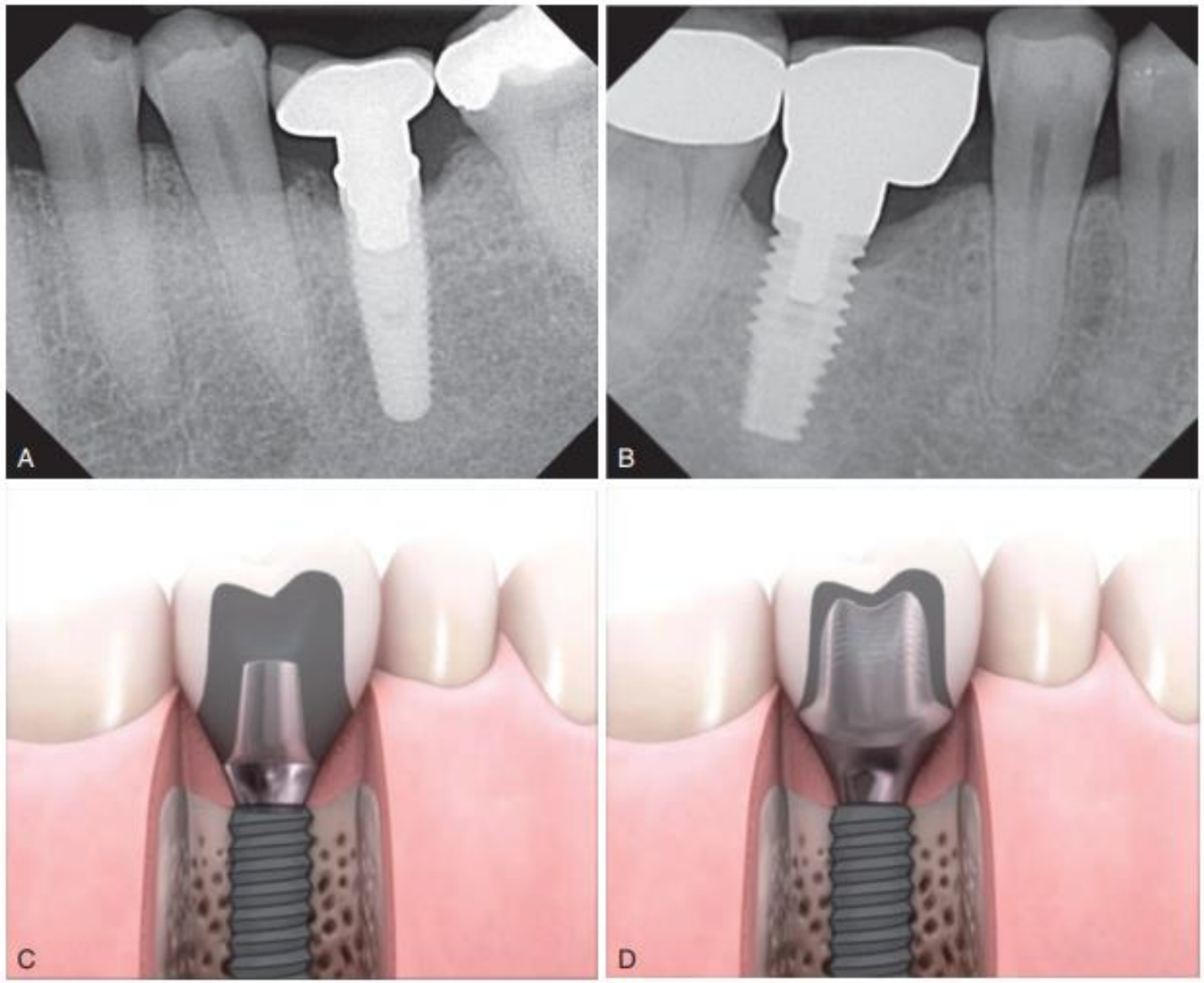


FIG 16.110 (A–B) Poor emergence profile. (C) Emergence profile is easily obtained via the prosthesis, (D) not necessarily a flared prefabricated abutment.

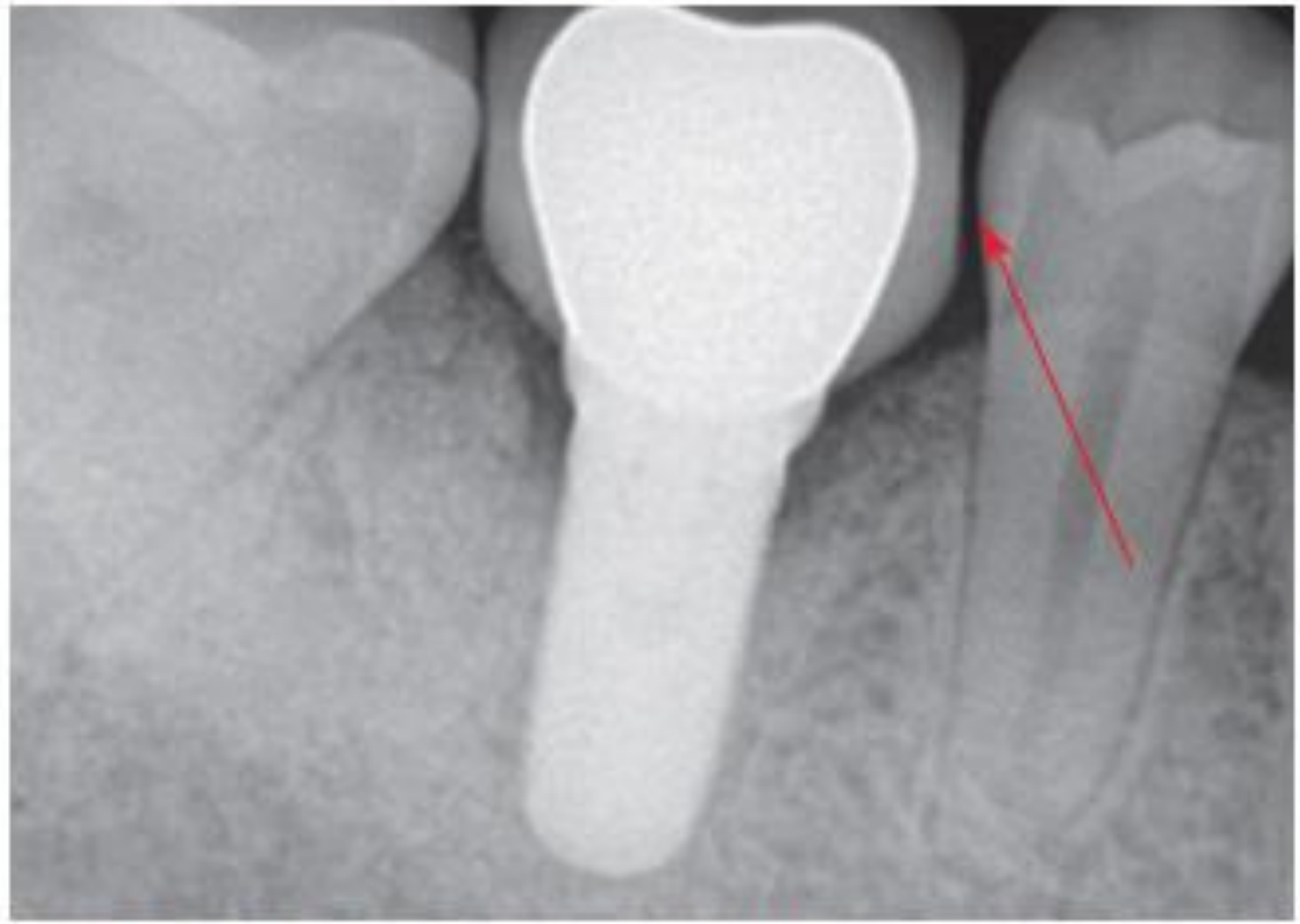


FIG 17.78 Open contact area after prosthesis insertion.

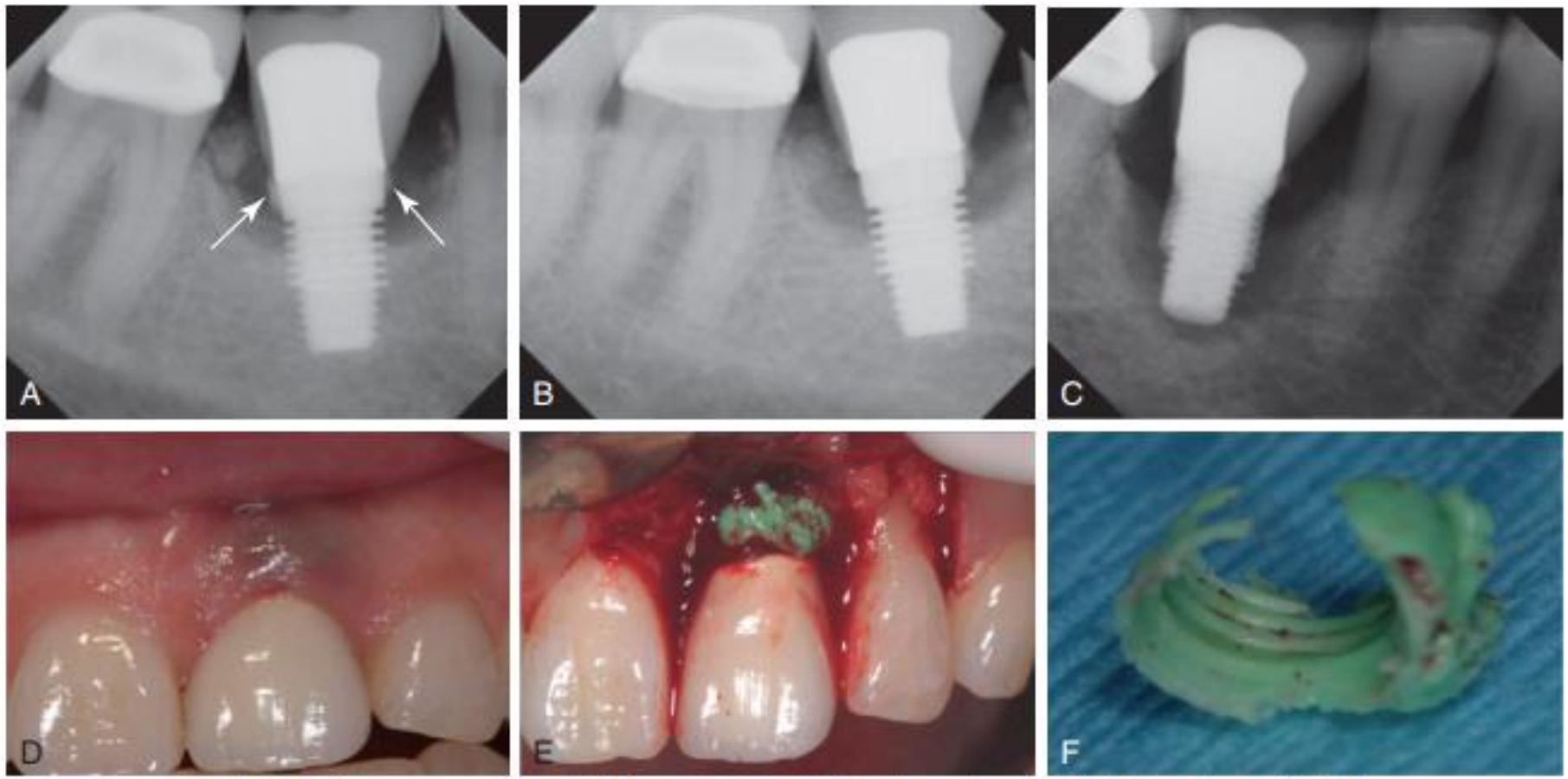


FIG 16.113 Cement retention. (A) Cement present in sulcus *(arrows)*. (B) Bone loss. (C) Failure of implant. (D) Dark hue present 6 months post implant crown insertion, (E–F) Etiologic complication resulting from sulcular retention of impression.

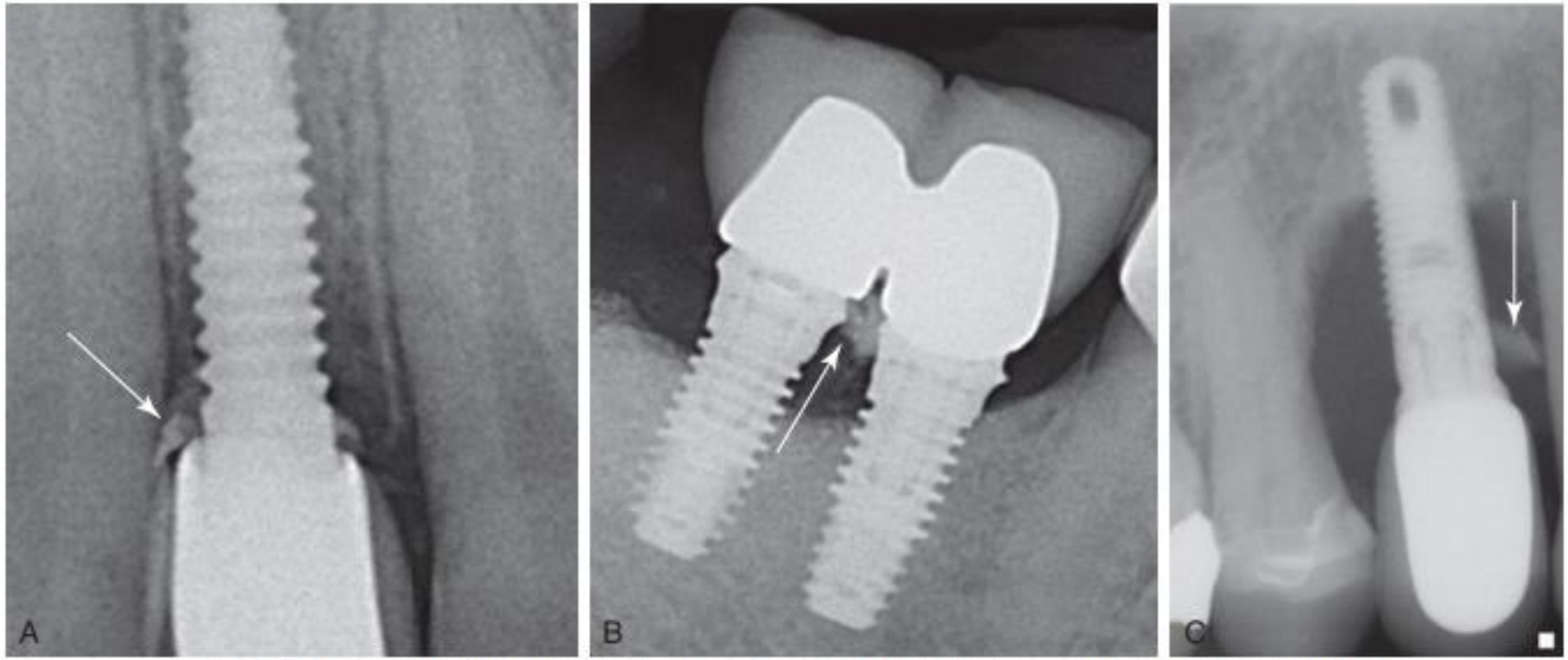


FIG 16.116 (A–C) Radiographic evaluation of cement retention; can only be seen on mesial and distal.

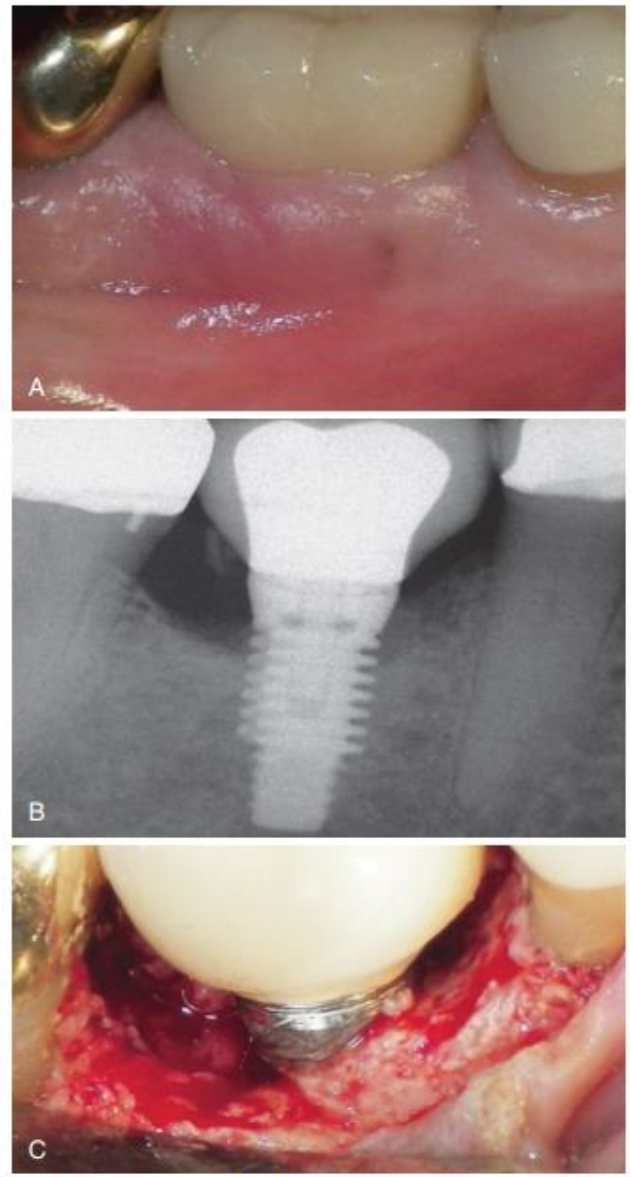


FIG 16.121 Treatment for retained cement. (A) Soft tissue irritation with chronic inflammation. (B) Radiographic confirmation of retained cement. (C) Treatment included surgical access for cement removal that included curettage, detoxification, and grafting.

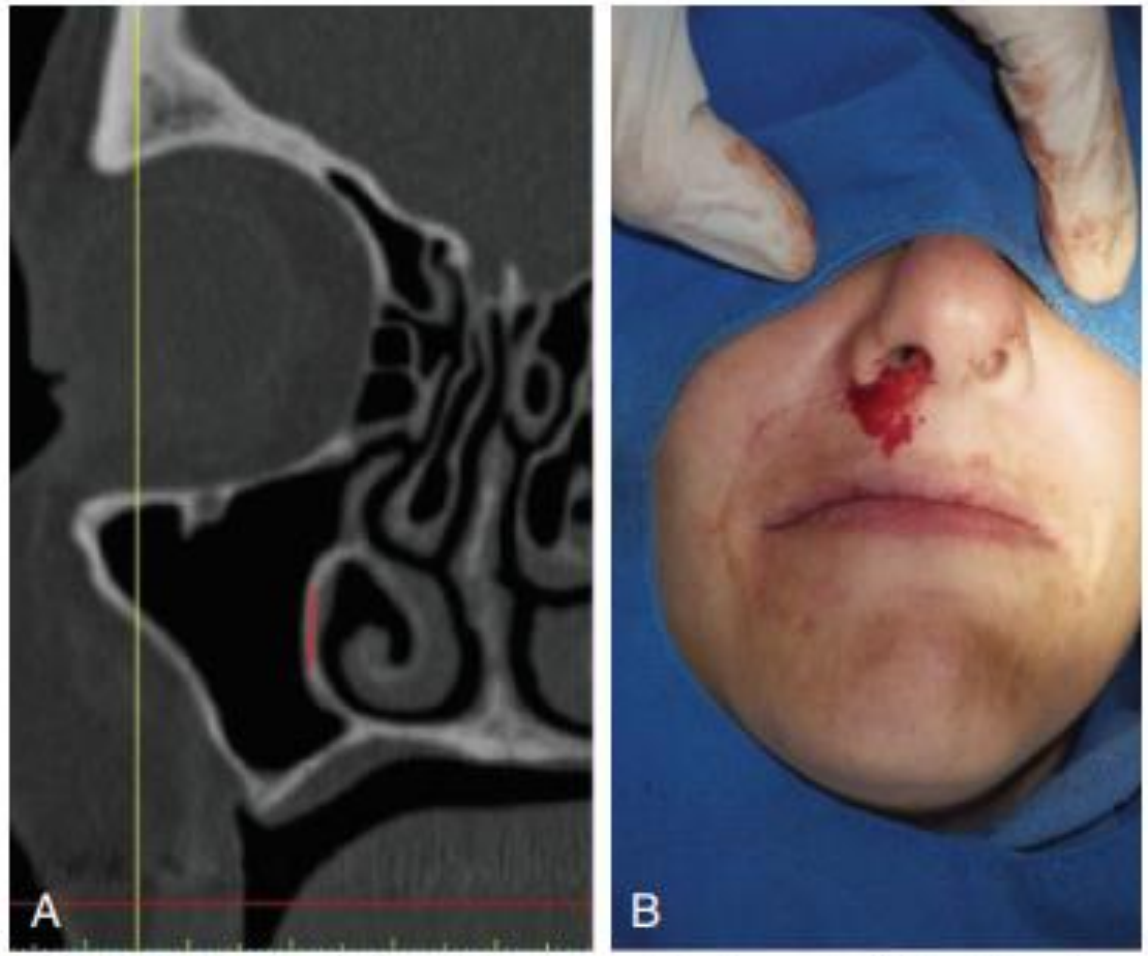


FIG 7.29 (A) Posterior lateral nasal artery *(red line)* in close approximation to the lateral wall of the nasal cavity (medial wall of maxillary sinus). (B) Nasal bleed during sinus augmentation procedure.

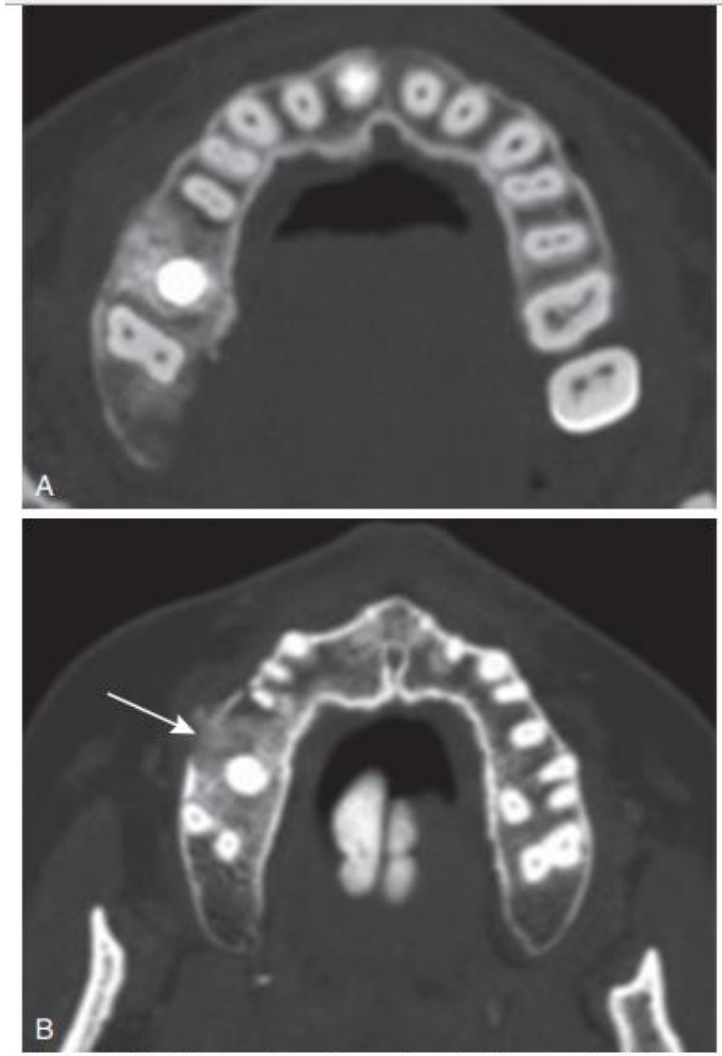


FIG 8.17 (A) CT scan showing a mixed radiopaque/radiolucent lesion of the right maxilla associated with the dental implant. The tumor has infiltrated the periodontal ligament space of the second premolar. (B) CT scan showing the osteosarcoma eroding the buccal cortex of the maxilla with extension into adjacent soft tissue *(arrow)*. (From McGuff HS, Heim-Hall J, Holsinger FC, et al: Maxillary osteosarcoma associated with a dental implant: report of a case and review of the literature regarding implant-related sarcomas. *JADA* 139(8):1052–1059, 2008.)

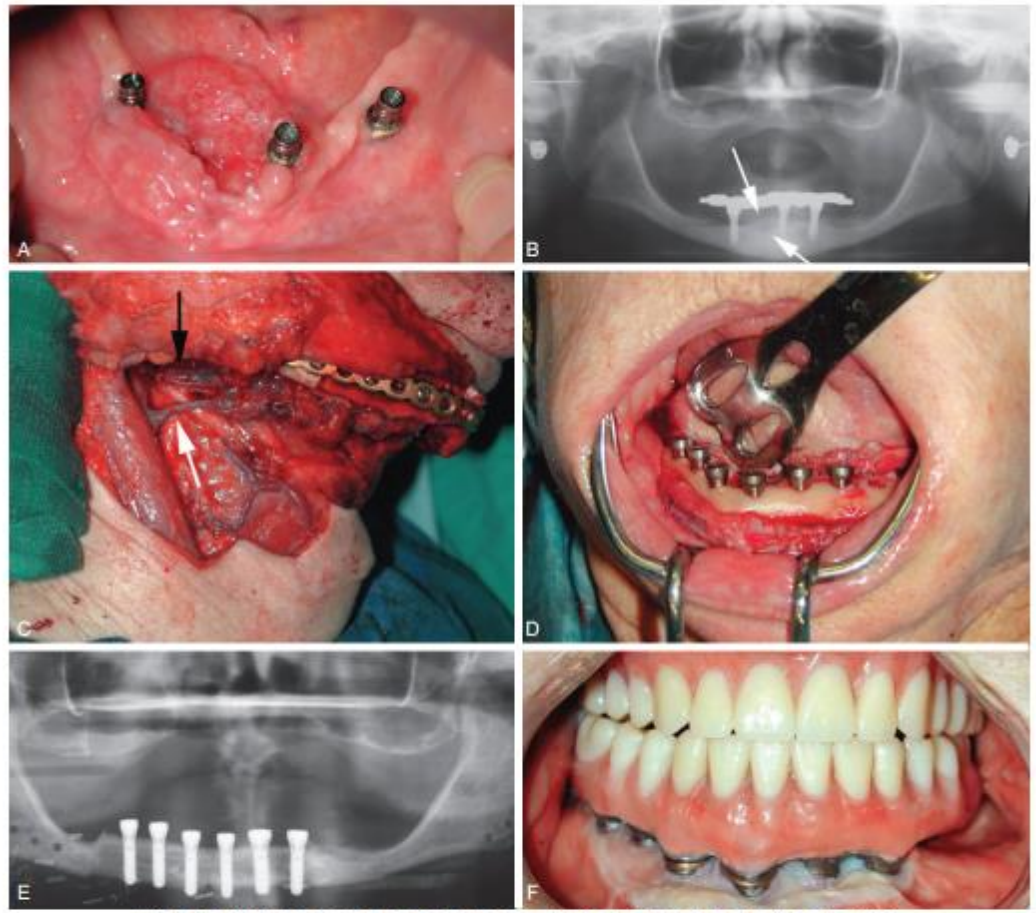


FIG 8.18 (A) Squamous cell carcinoma located on the alveolar ridge and floor of mouth. (B) Panoramic radiograph showing erosion of lesion into bone *(arrows)*. (C) Intraoperative photograph after mandible and surrounding soft tissues were resected, and a free fibular bone flap and reconstruction bone plate have been used to reconstruct the mandible. Note the venous anastomosis *(white arrow)*. The arterial supply to the flap is also shown *(black arrow)*, but the actual anastomosis is located more proximally, under the tissue, and is not visible. (D) After the bone graft has healed, dental implants are inserted. (E) Panoramic radiograph showing the reconstructed mandible after implants have been inserted. (F) Intraoral view of prosthetic reconstruction of dental implants. The white tissue surrounding the implants is skin that was transferred with the bone flap. (Courtesy Dr. Remy Blanchaert, Jr. In Hupp JR, Tucker MR, Ellis E: *Contemporary oral and maxillofacial surgery*, ed 6, St. Louis, 2014, Mosby.)

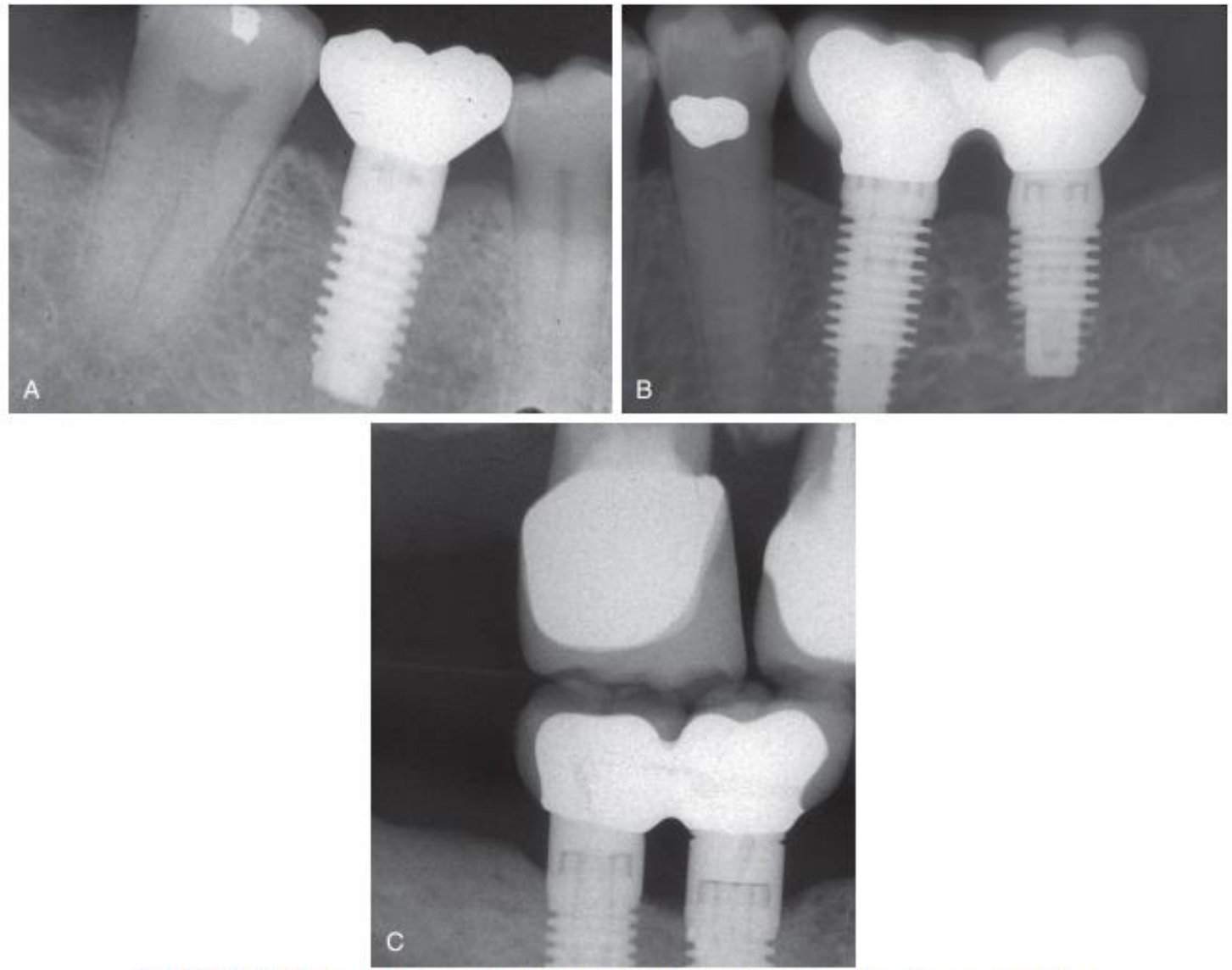


FIG 18.46 (A–B) Group I represents optimum health conditions around an implant. Less than 1.5 mm of crestal bone loss occurs during the first year of occlusal loading from the time of prosthesis delivery. (C) A vertical bitewing radiograph can be obtained to assess mesiodistal bone levels. (From Misch CE: *Dental implant prosthetics,* ed 2, St Louis, 2015, Mosby.)

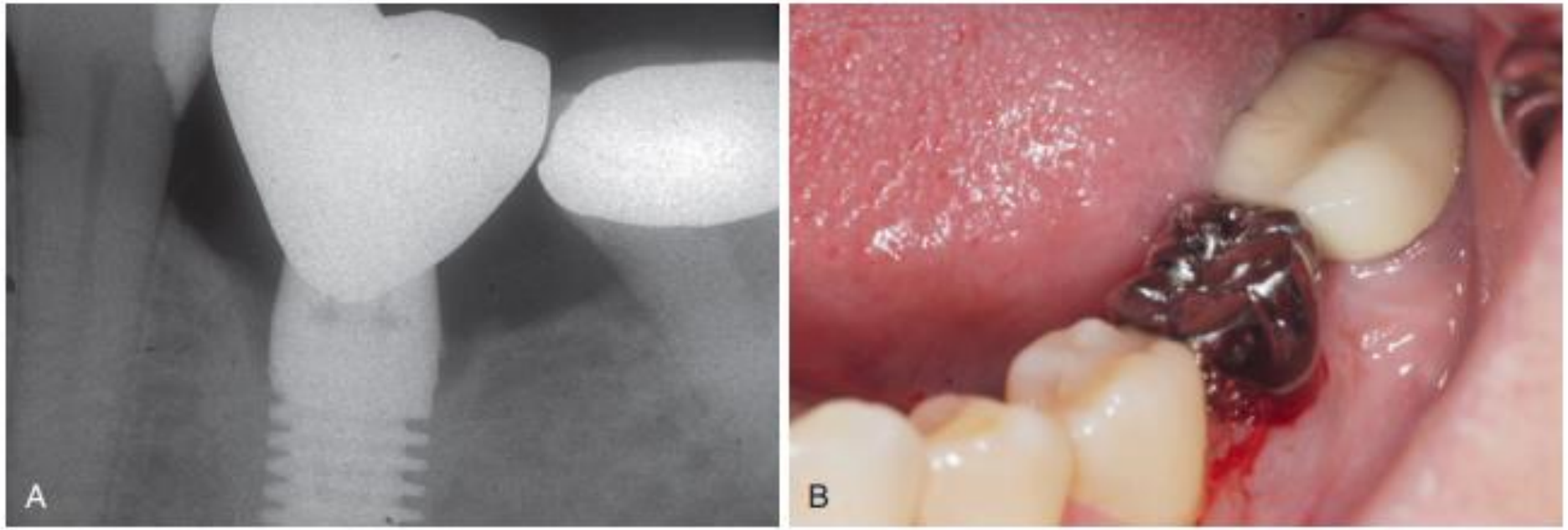


FIG 18.47 (A) Group II represents satisfactory health around an implant. This implant has lost 2 mm of crestal bone. (B) The implant crown has bleeding upon probing index of 2. (From Misch CE: *Dental implant prosthetics*, ed 2, St Louis, 2015, Mosby.)