

Early complications leading to implant failure

Cabadas Reyes Alexa Paola, DDS ¹/ Soto Sánchez Víctor, DDS ²

Introduction

Biological early implant failure can be defined as the inadequacy of host tissue to establish the implant- bone connection during initial phase leaving a fibrous scar tissue between implant surface and surrounding bone.

Clinical signs of osseointegration loss are manifested by peri implant radiolucency and implant mobility arising from the replacement of highly specialized bone tissue with a fibrous connective tissue capsule

Early failures are most likely caused by improper surgical technique such as bone overheating, lack of primary stability, bacterial contamination during surgery or due to early mucosal dehiscence and patient's health condition

Clinical case



Odontología
Restauradora
Avanzada

A 49 years old male patient who presented for prosthetic rehabilitation of a 5 x 10 mm implant placed 6 months ago. In zone of tooth 30



Peri implant tissues evaluation:: probing depth ≤ 3 mm and no bleeding on probe.



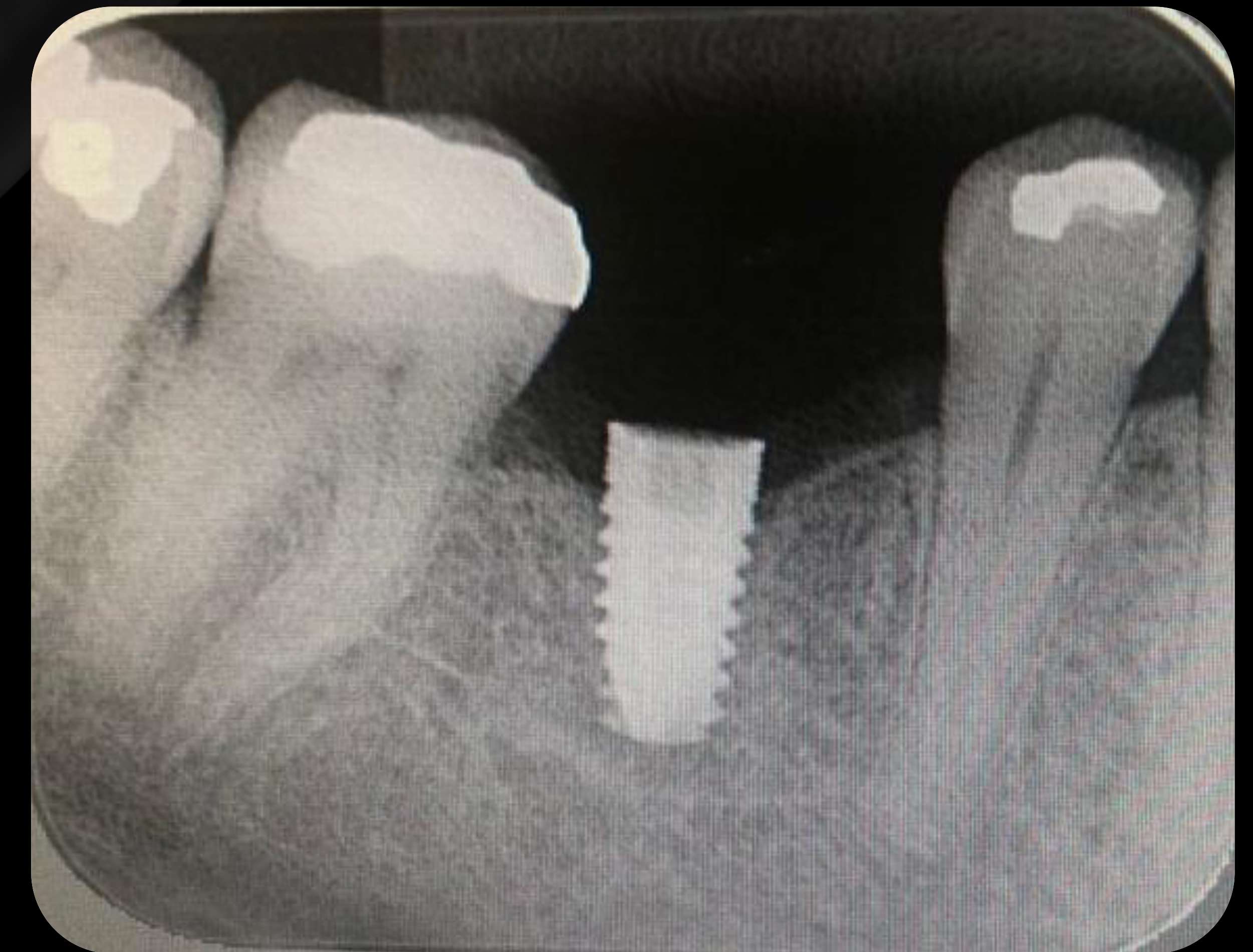
Clinical examination revealed platform exposure due to mucosal dehiscence and loss of implant cover screw.



The patient claimed pain when vertical forces were applied through an impression coping and clinical observation under magnification suggested mobility.



Radiographic exam showed about 2 mm of crestal bone loss.



Explantation socket was examined and curetted to remove all fibrous and granulation tissue.

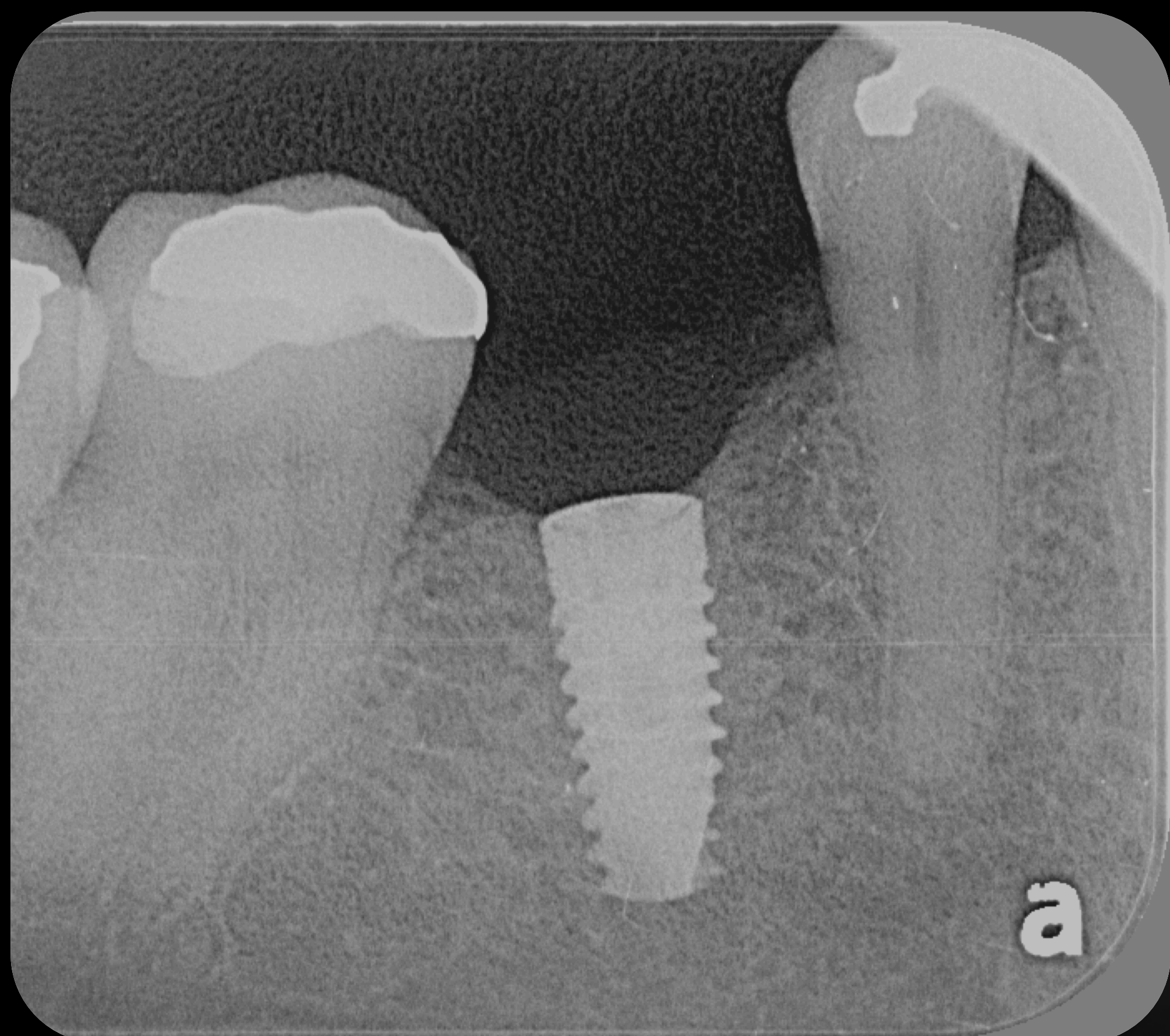


Results

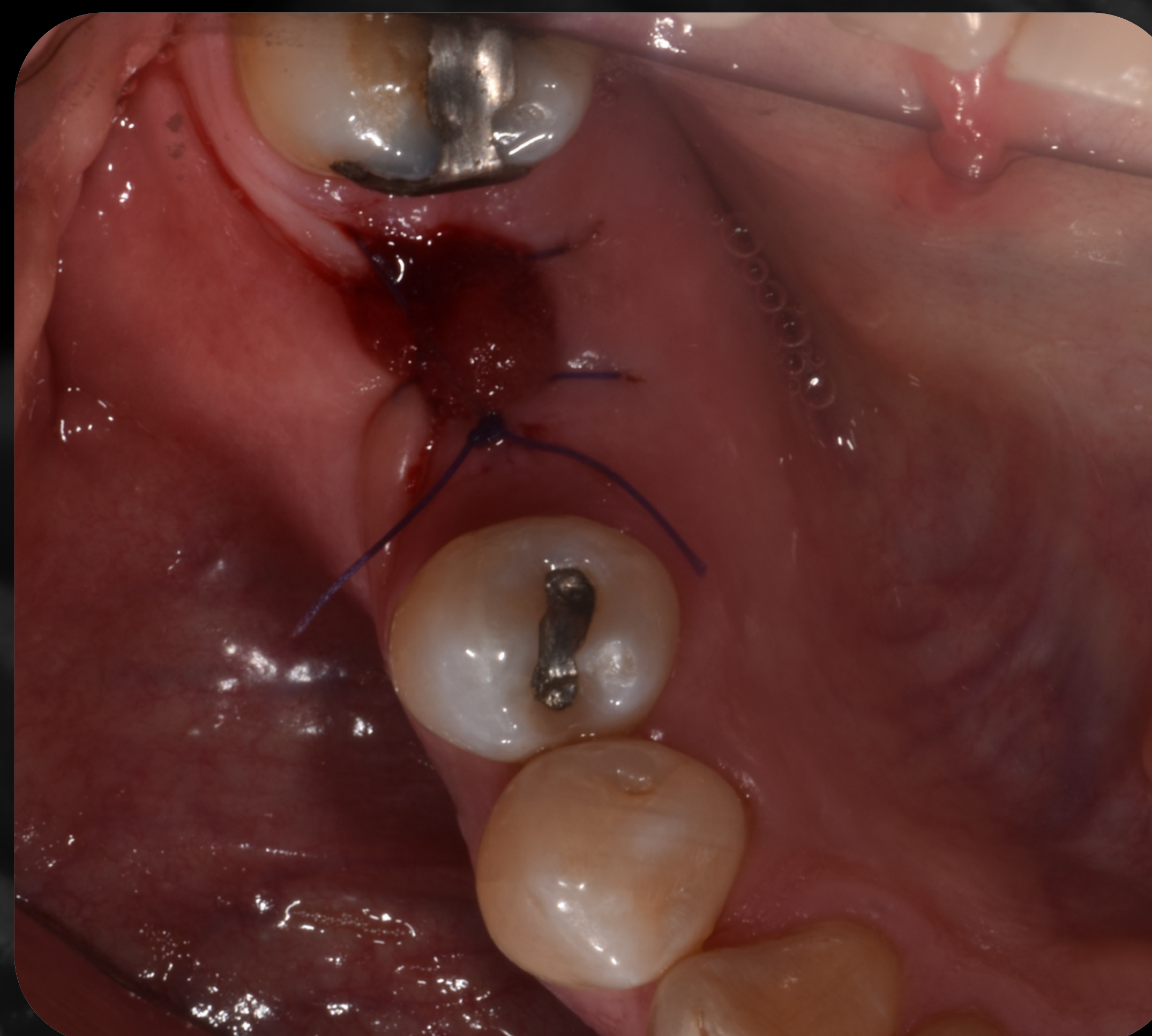


Odontología
Restauradora
Avanzada

Insertion of a 5 x 11.5 mm implant with motor and torque ratchet with an insertion torque of at least 35 N, achieving primary stability.



Surgical site was sutured using 4-0 braided non-absorbable figure-of-eight technique with hemostatic sponge placed over the top of the implant site.



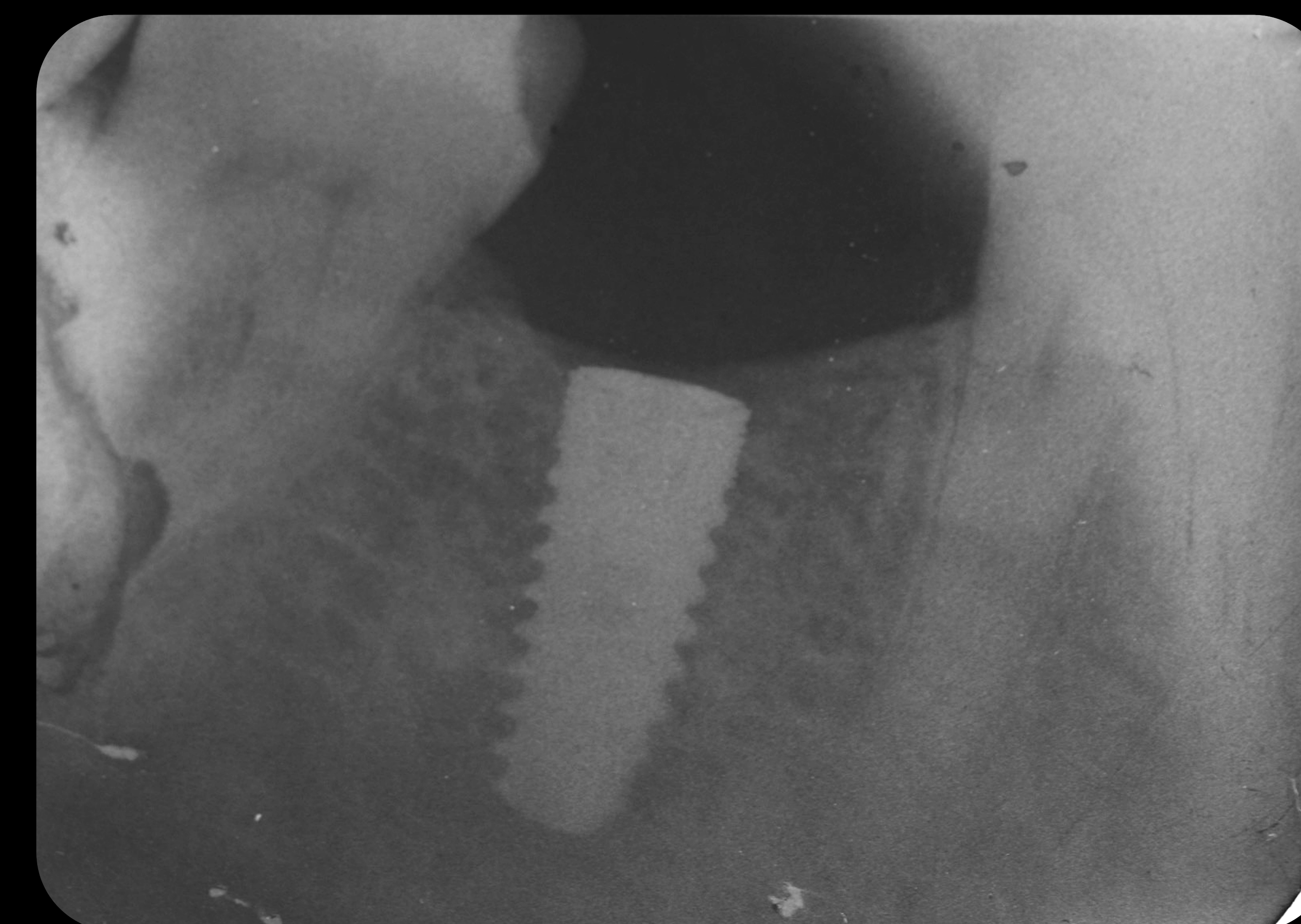
One week follow up visit, surgical site was clinically healthy according to time evolution and stitches were removed.

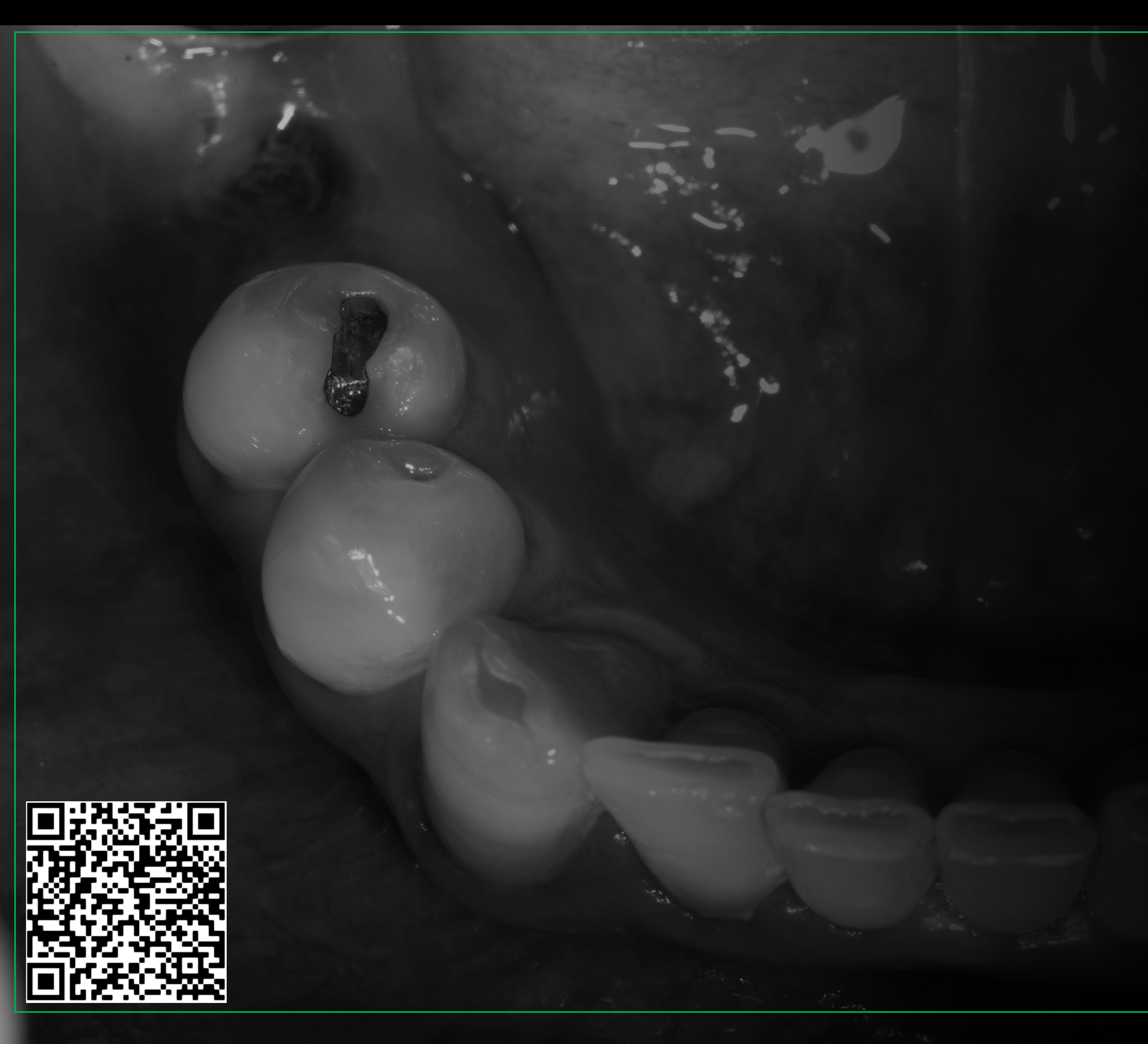


Clinical exam showed complete soft tissue healing.



Radiographic exam showed peri implant marginal bone level stability.





Conclusions

Biological early implant failure has many risk factors; it cannot be considered only one of them as the main cause of failure.

Larger implants increase the surface area of the bone-implant contact for immediate replacement of nonintegrated implants.

Implant's insertion below the crestal bone reduces cortical bone support and may result in less spontaneous exposure.

