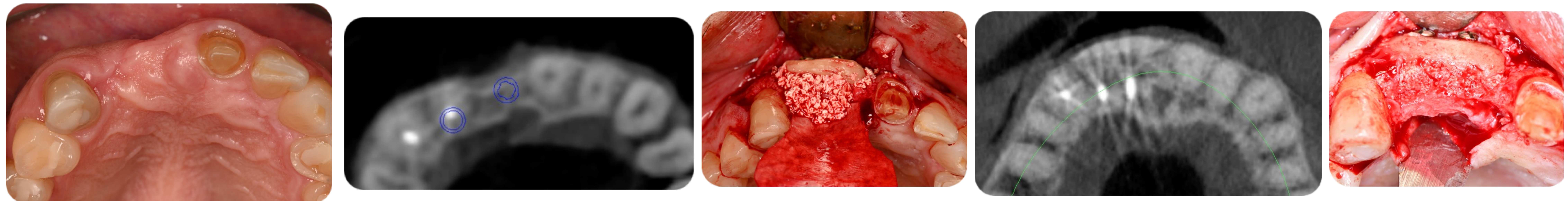


Ramus Block Grafts: A Predictable Grafting Option for Late Implant Placement

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Waldemar Polido

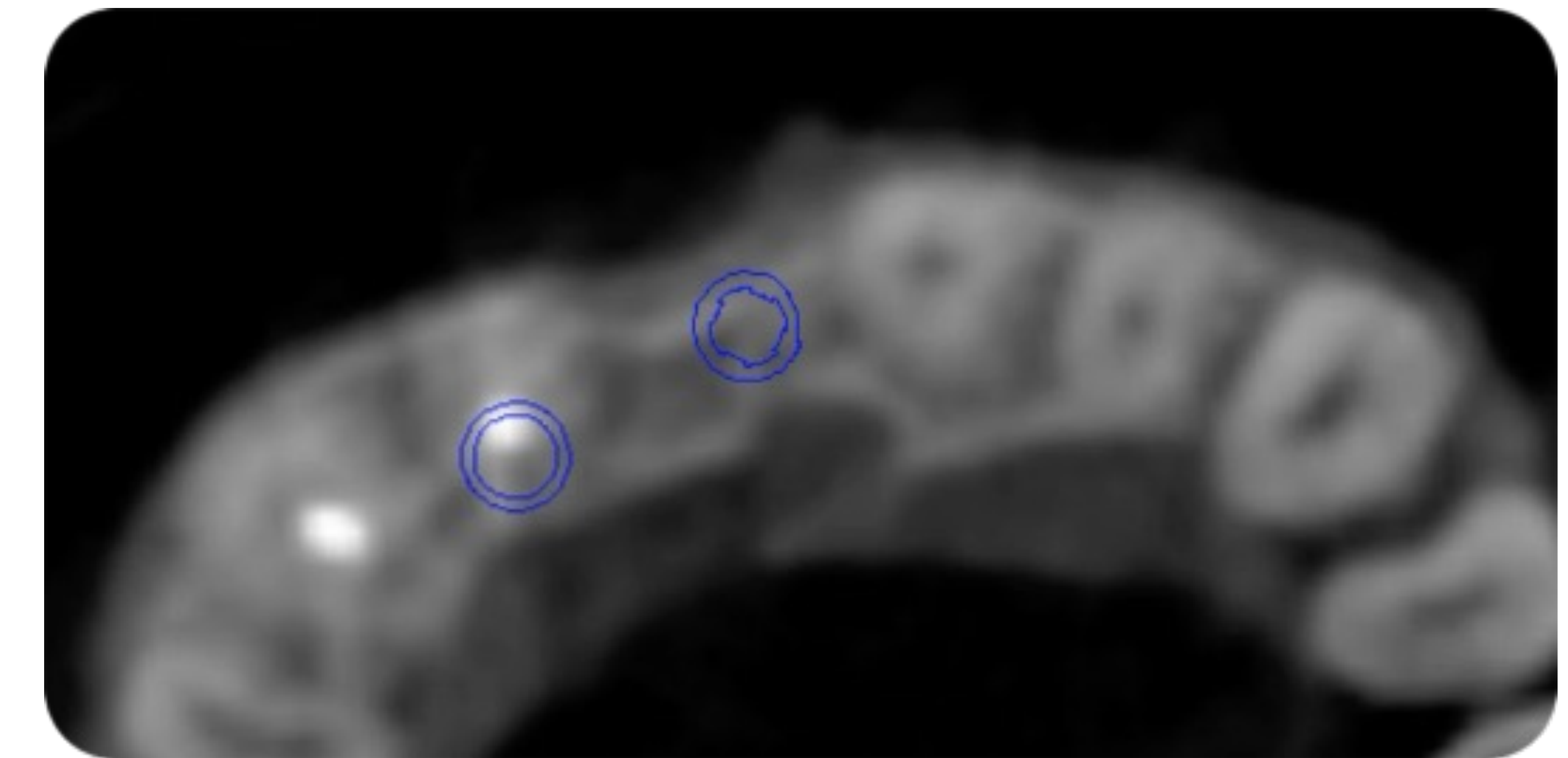
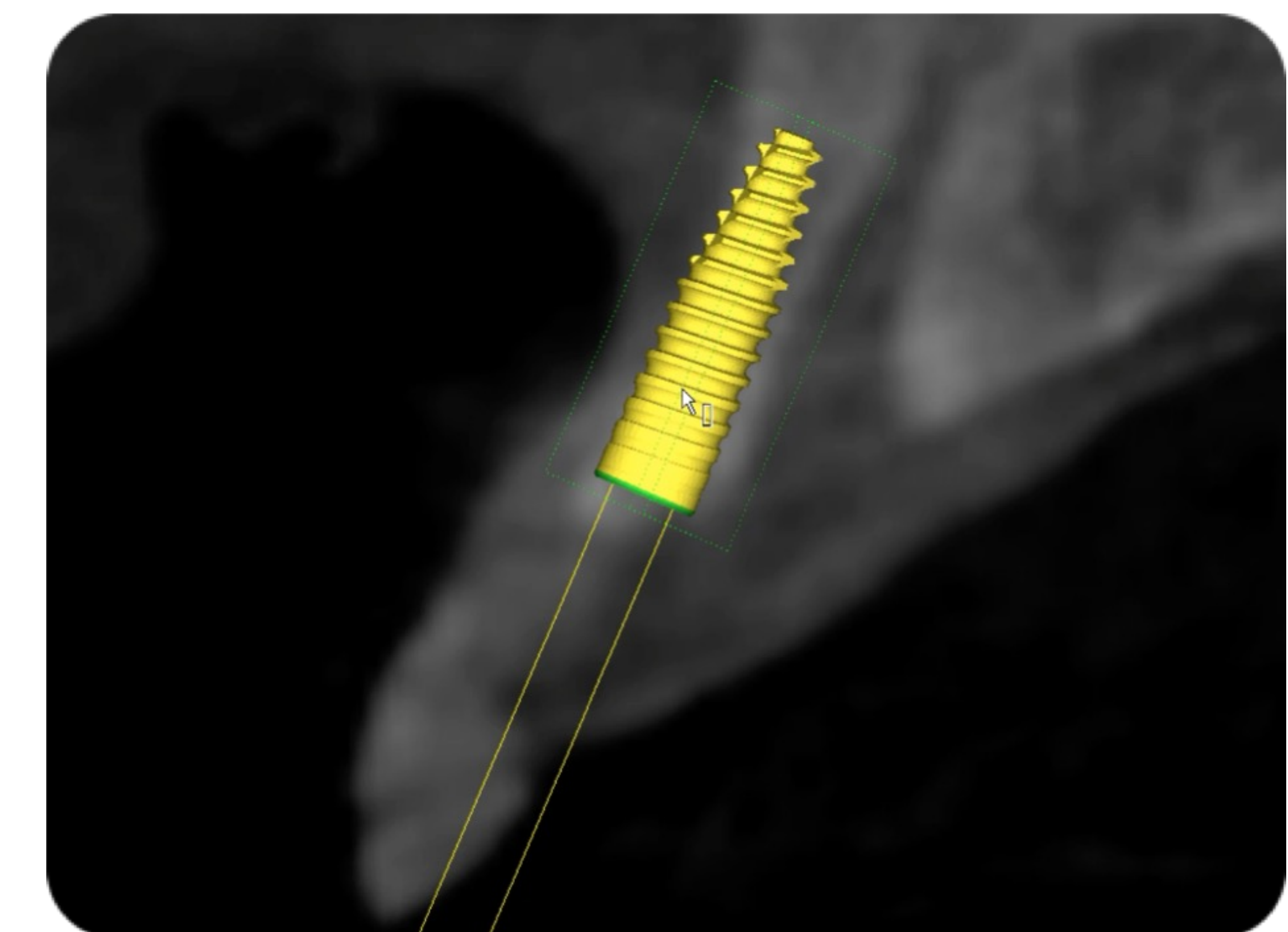
Abstract

- **Deficient alveolar ridges** usually require a **staged grafting** protocol, with a **late implant placement** approach. The recommended time elapsed from grafting to implant placement is usually 4 to 6 months, as greater than 6 months after grafting may increase the risk for bone graft remodeling and resorption, leading to a less than ideal ridge width at implant placement.
- Our case study shows an anterior maxillary site grafted with autogenous cortico-cancellous **mandibular block graft**, protected with a layer of bone substitute and a slow resorbable collagen membrane.
- The implant was placed **13 months after grafting**. Bone **remodeling was minimal**, allowing for an adequate ridge for fully guided implant placement.
- This case study suggest that when **staged horizontal ridge augmentation** is indicated, the mandibular **ramus block graft** combined with bone substitute layer and a slow-resorbing membrane can provide predictable and long lasting outcomes.

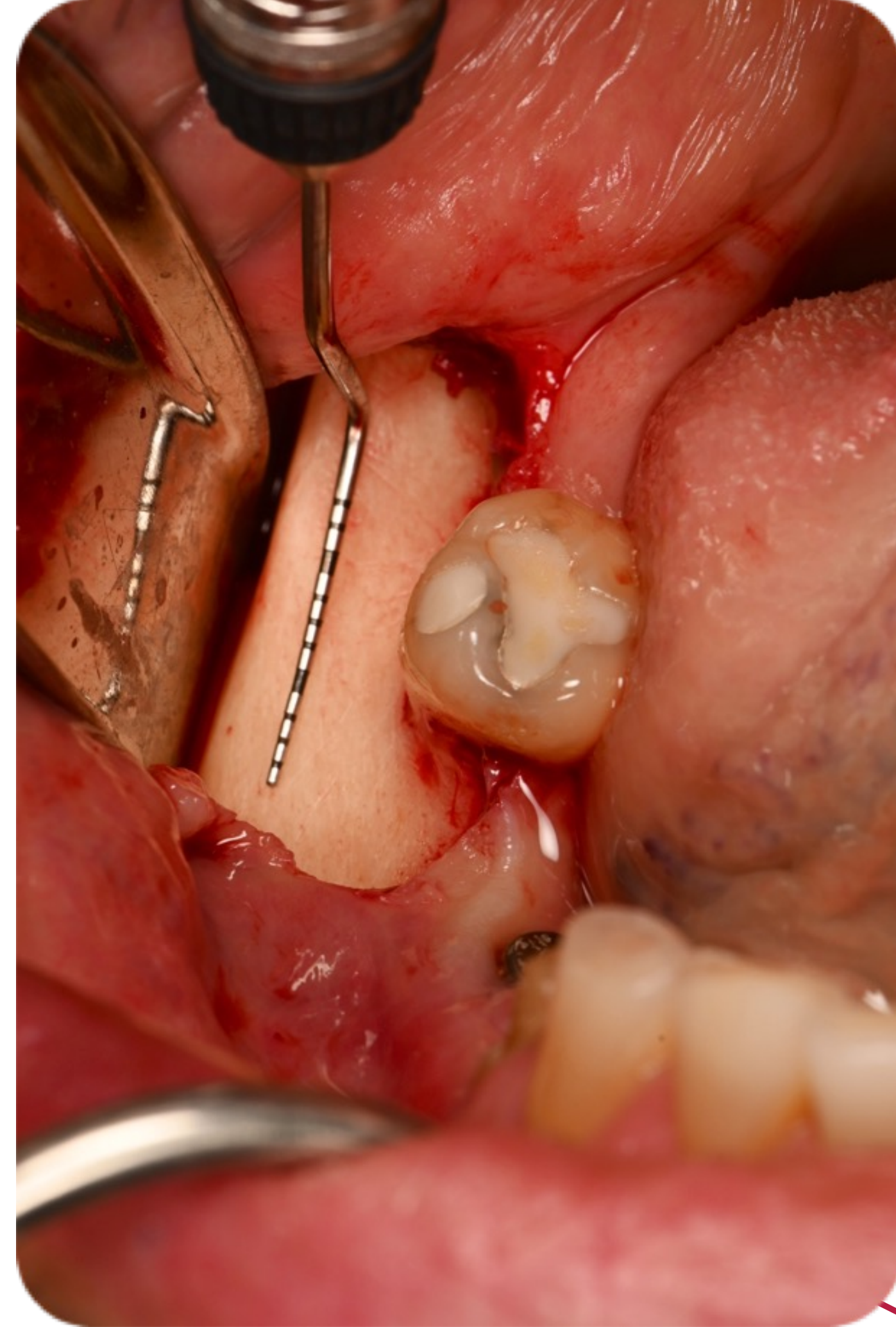


Case Study

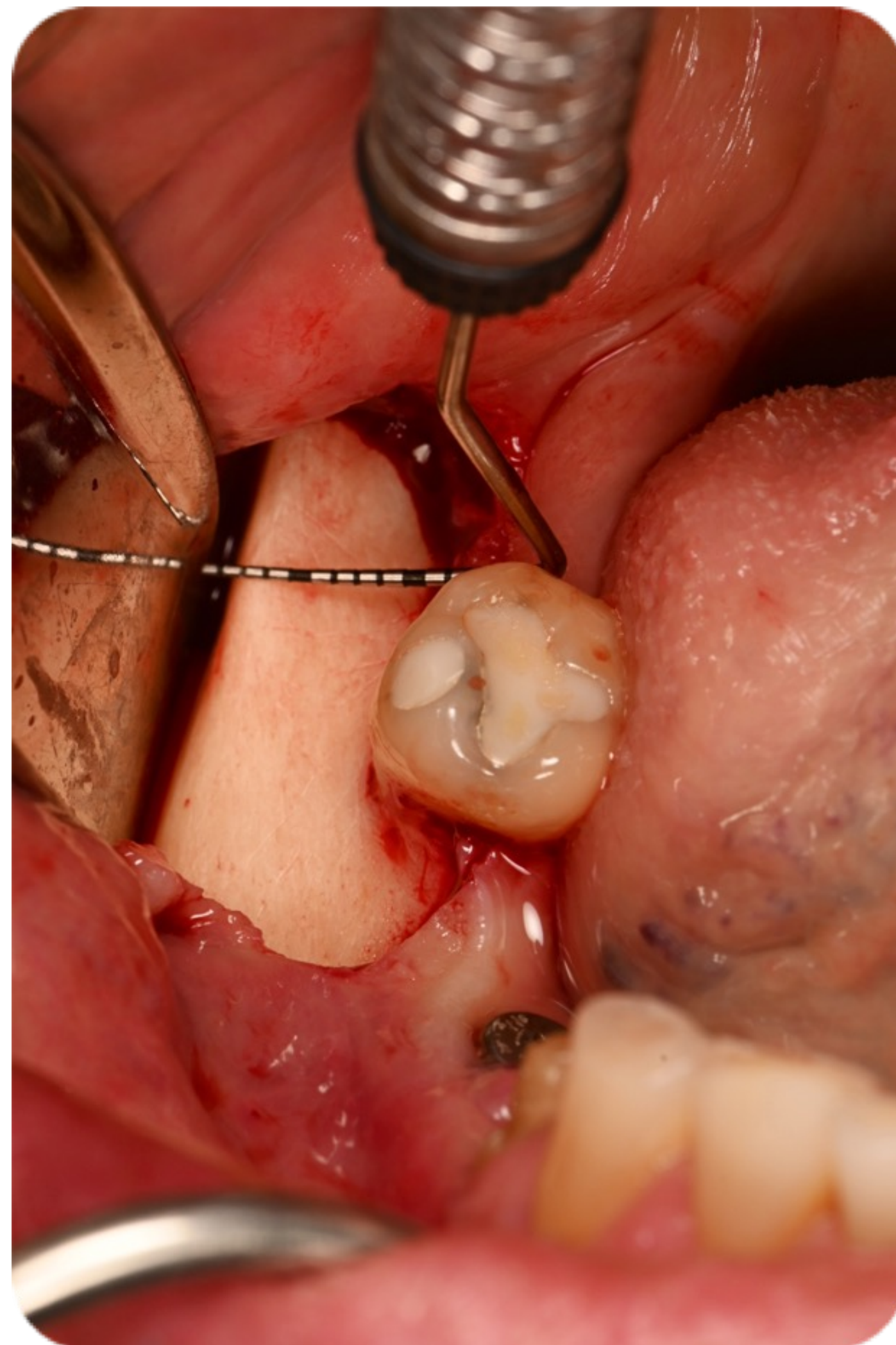
- A 69 year old male presented with compromised tooth 6 and missing teeth 7. After virtual surgical planning, a horizontally deficient ridge on site 7 was detected, not allowing for a restoratively driven implant placement.
- A prosthetically driven bone graft was planned, utilizing a ramus block graft, combined with DBBM bone substitute and covered with a slow resorbable membrane.
- Extraction of # 6 was initially performed to allow better soft tissues volume, improving soft tissues outcome when performing the graft to site #7.
- Implant was placed 13 months after grafting. Bone remodeling was minimal, allowing for an adequate ridge for fully guided implant placement.



Graft harvesting



Exposure and osteotomy with 702L drill

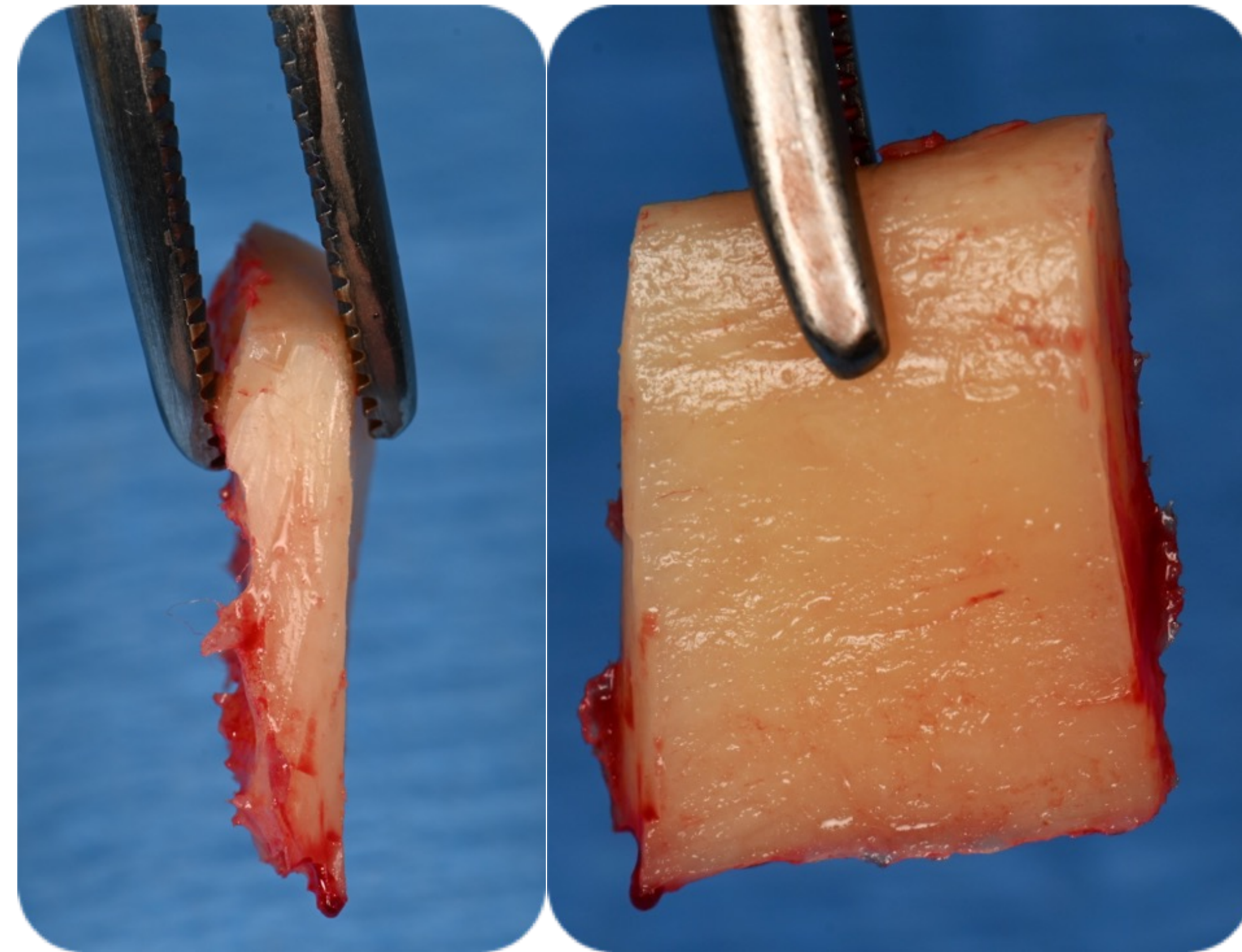


Separation of block with Potts elevator

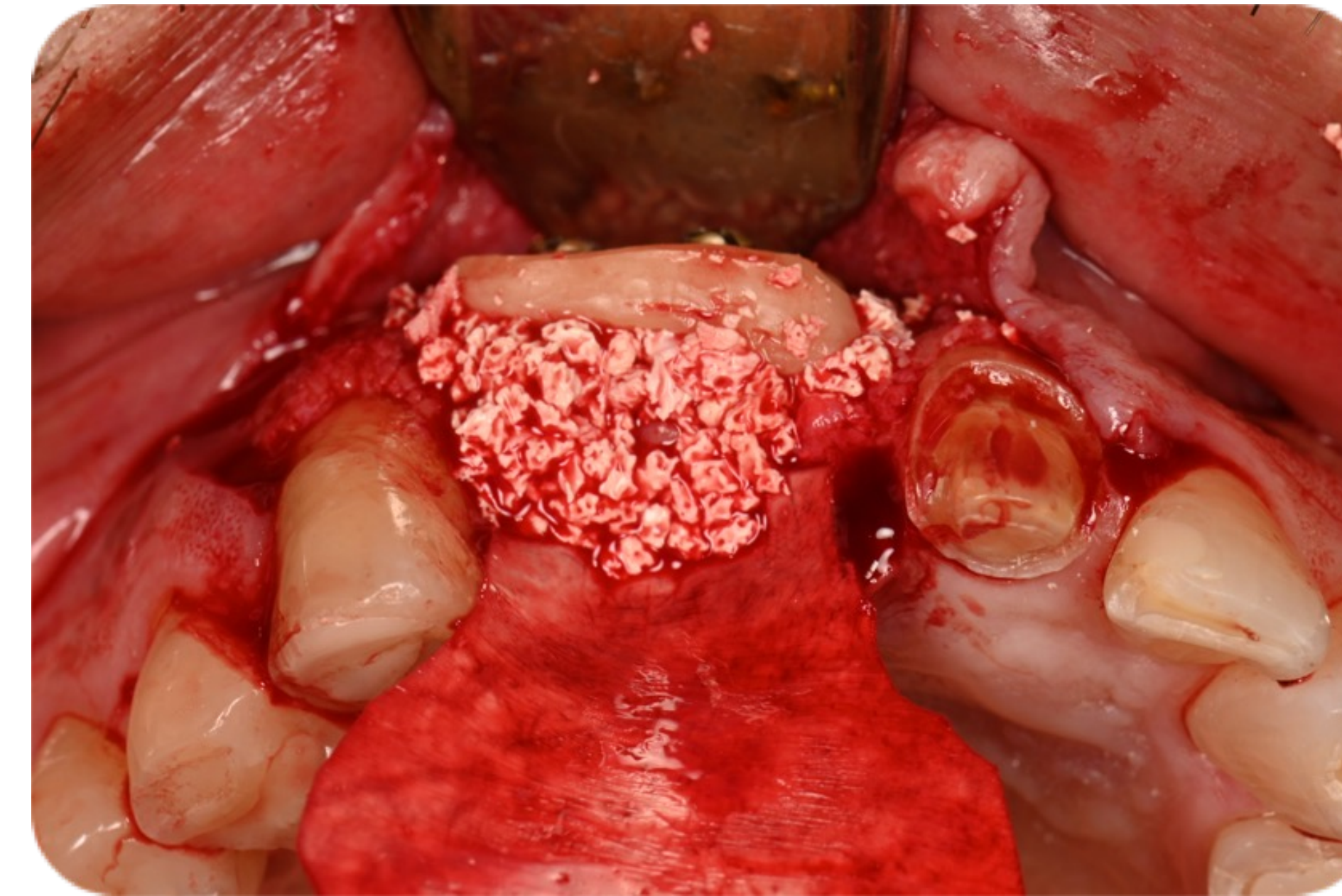
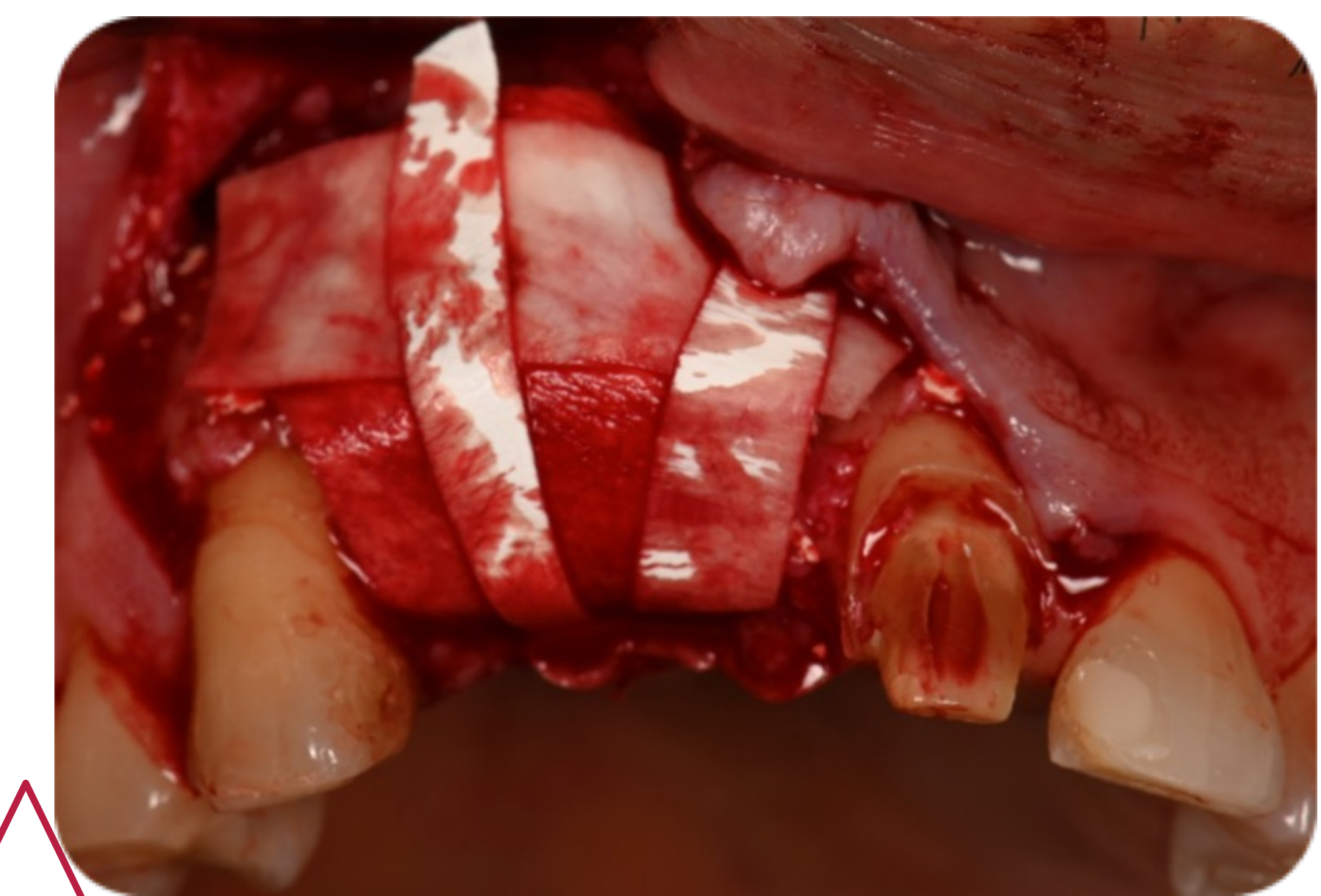


Collagen plug to wound before closure

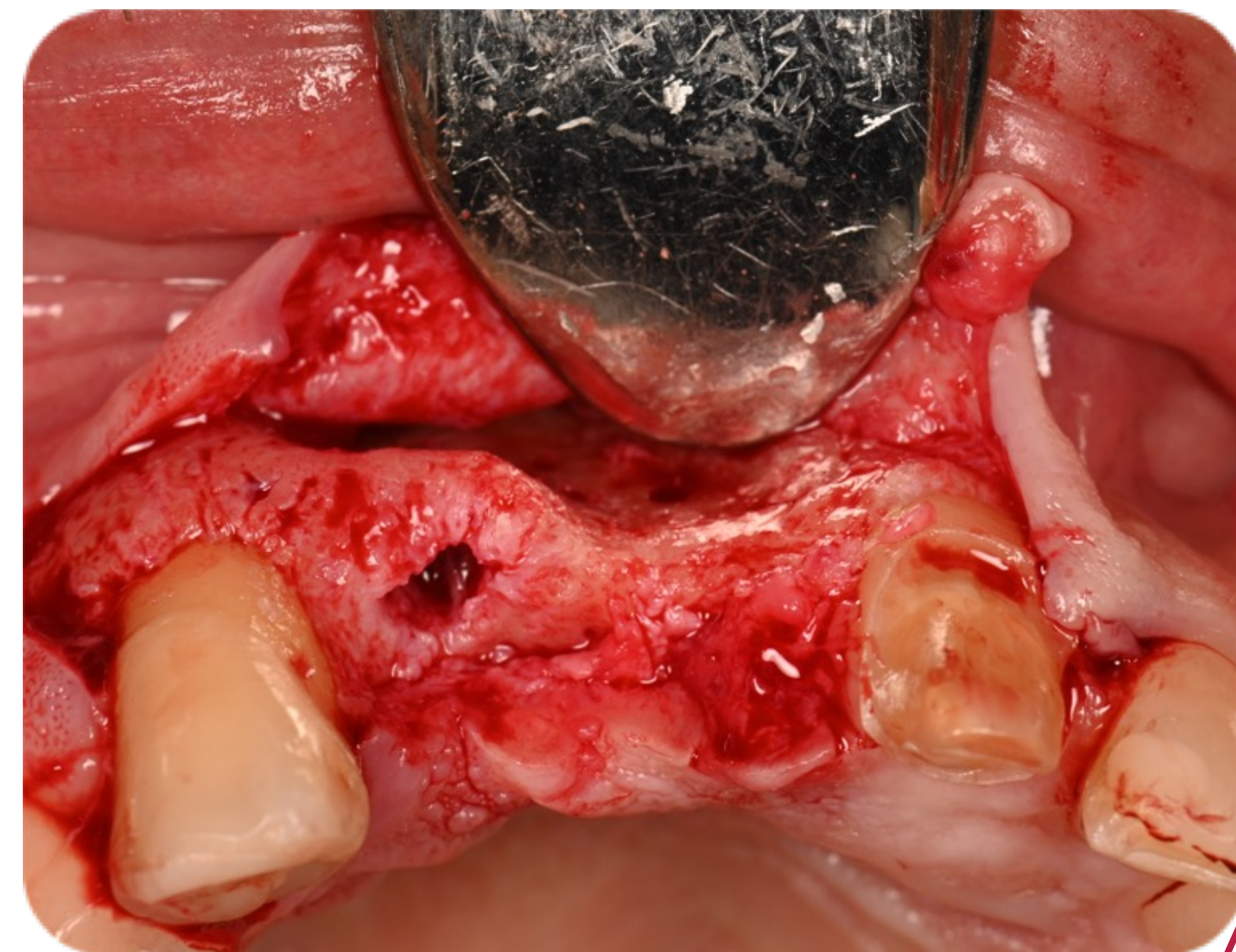
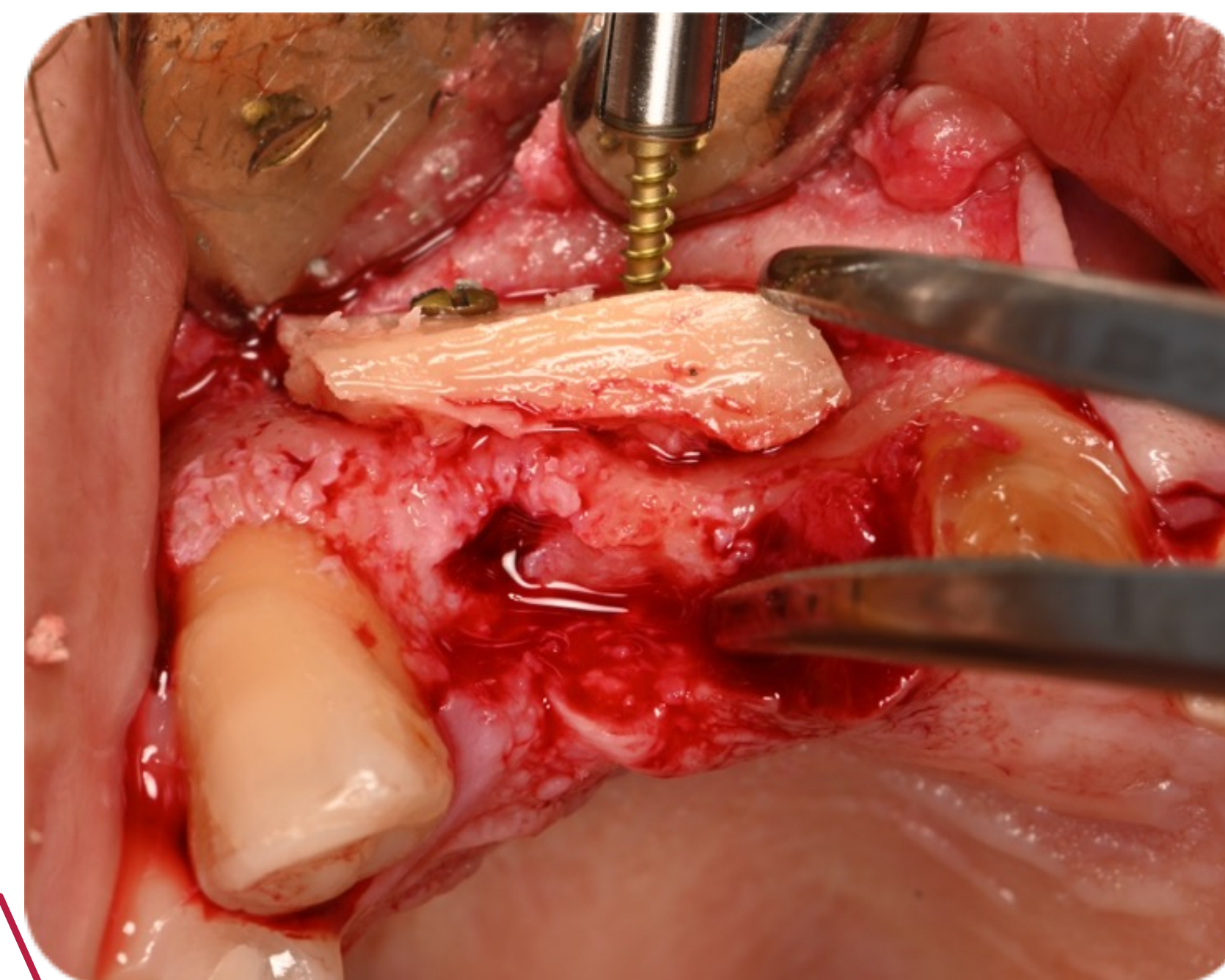
Graft adaptation / fixation



Ramus graft

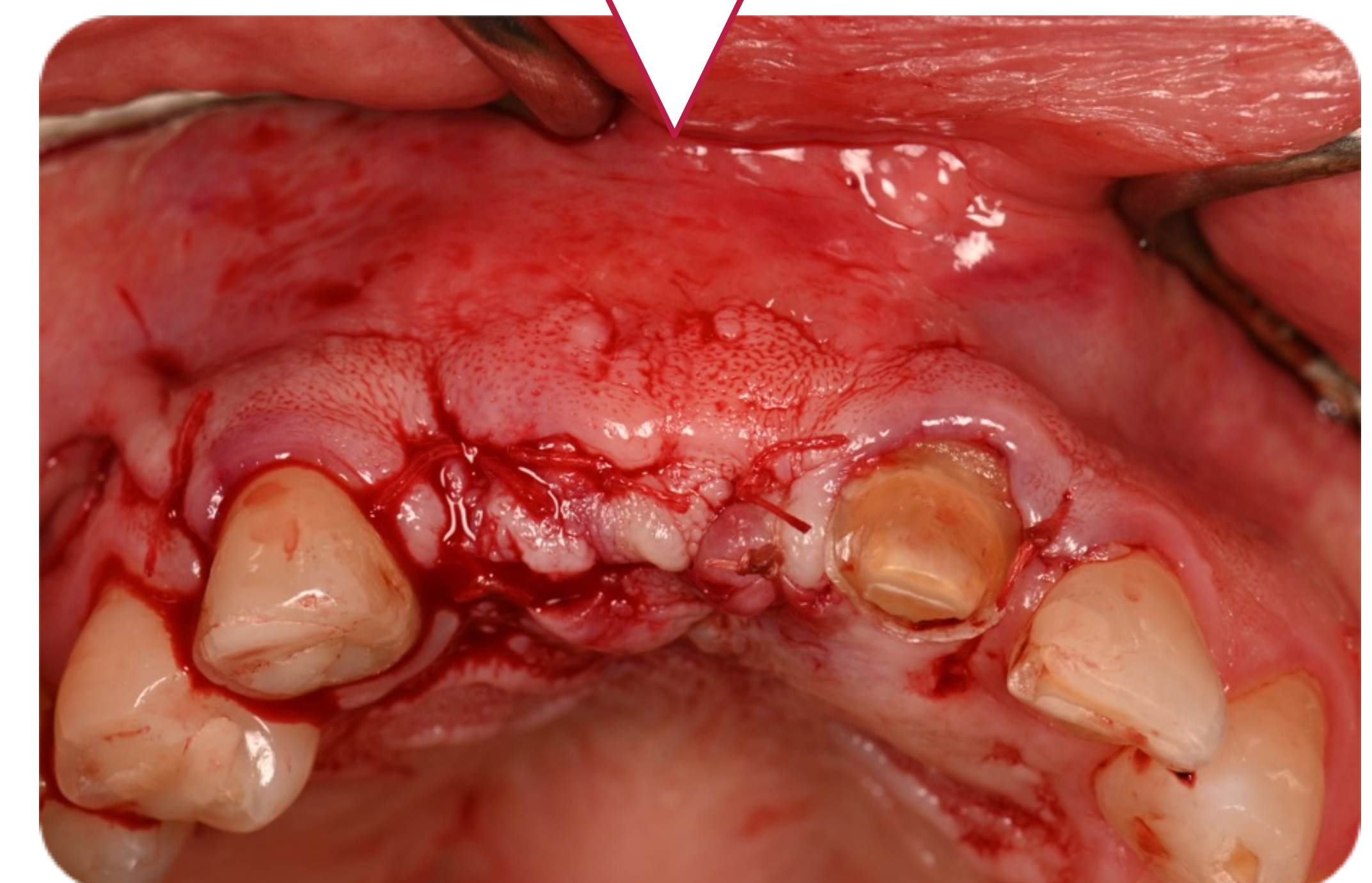


DBBM +
Collagen
membrane



Block
adaptation
and fixation

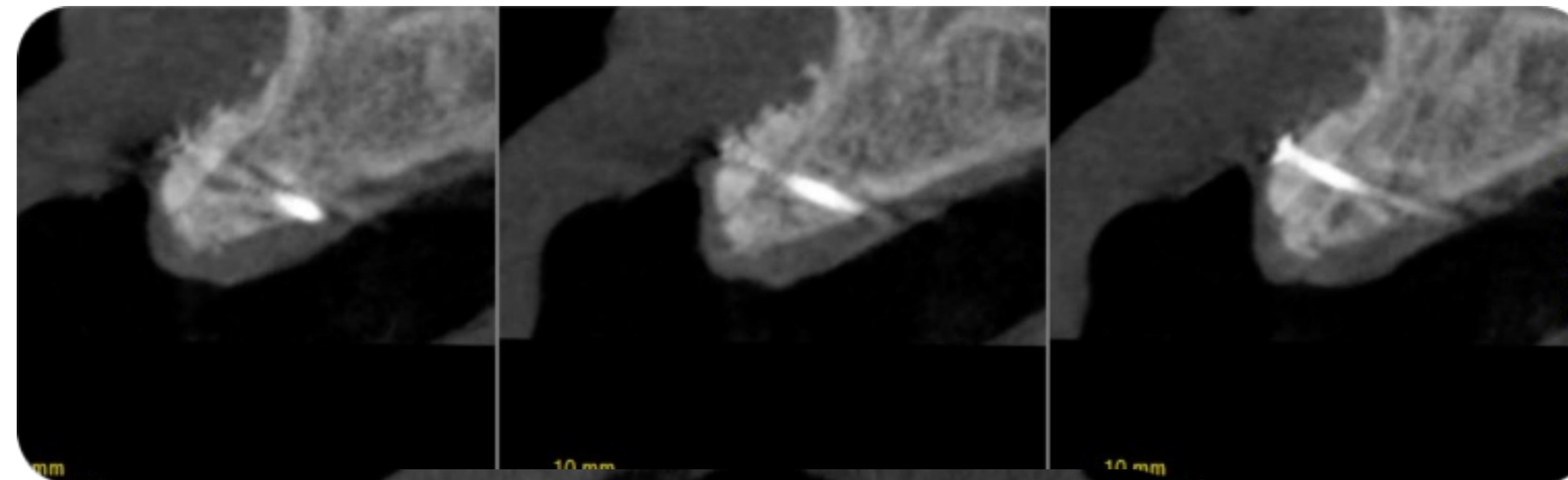
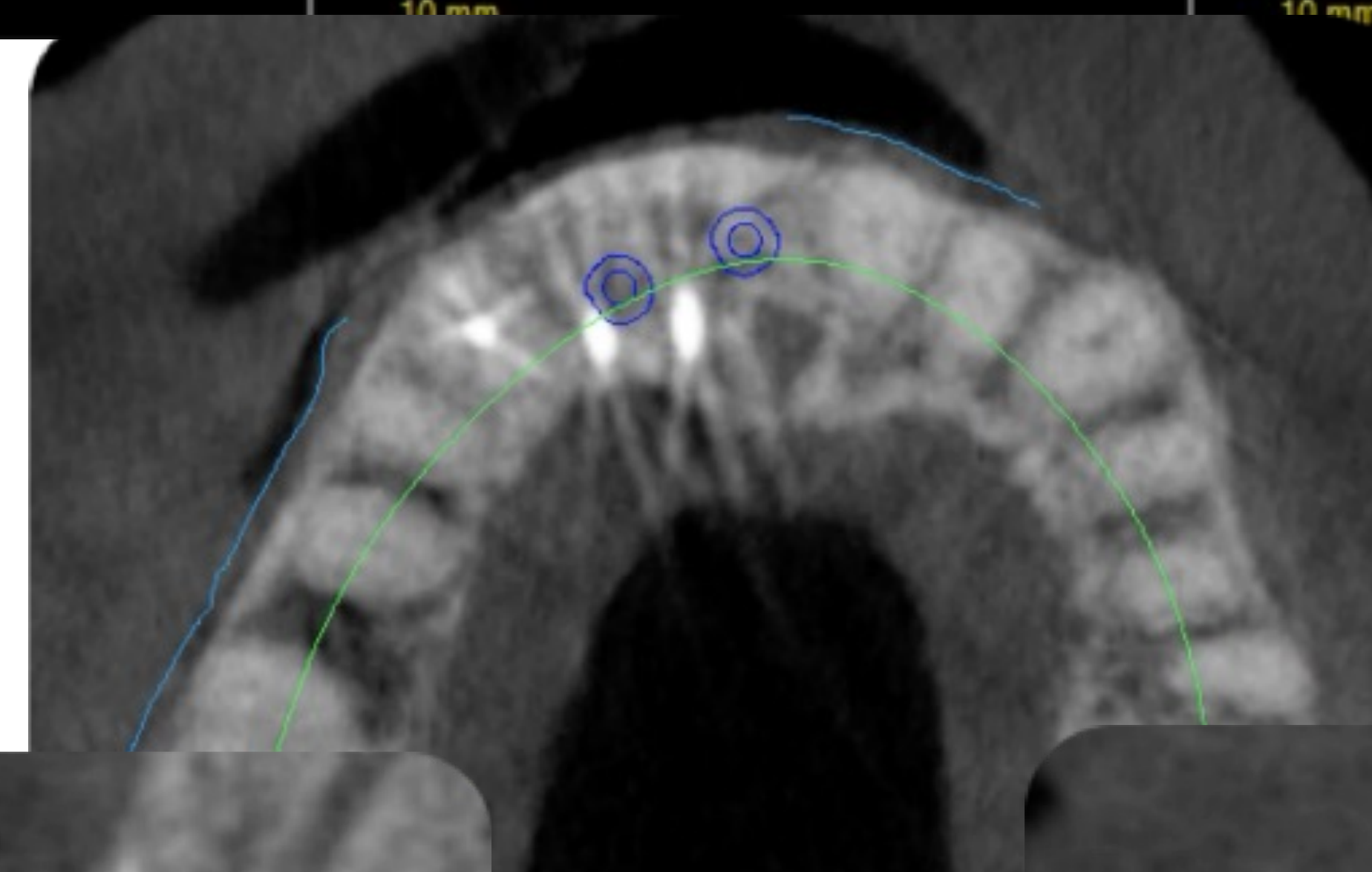
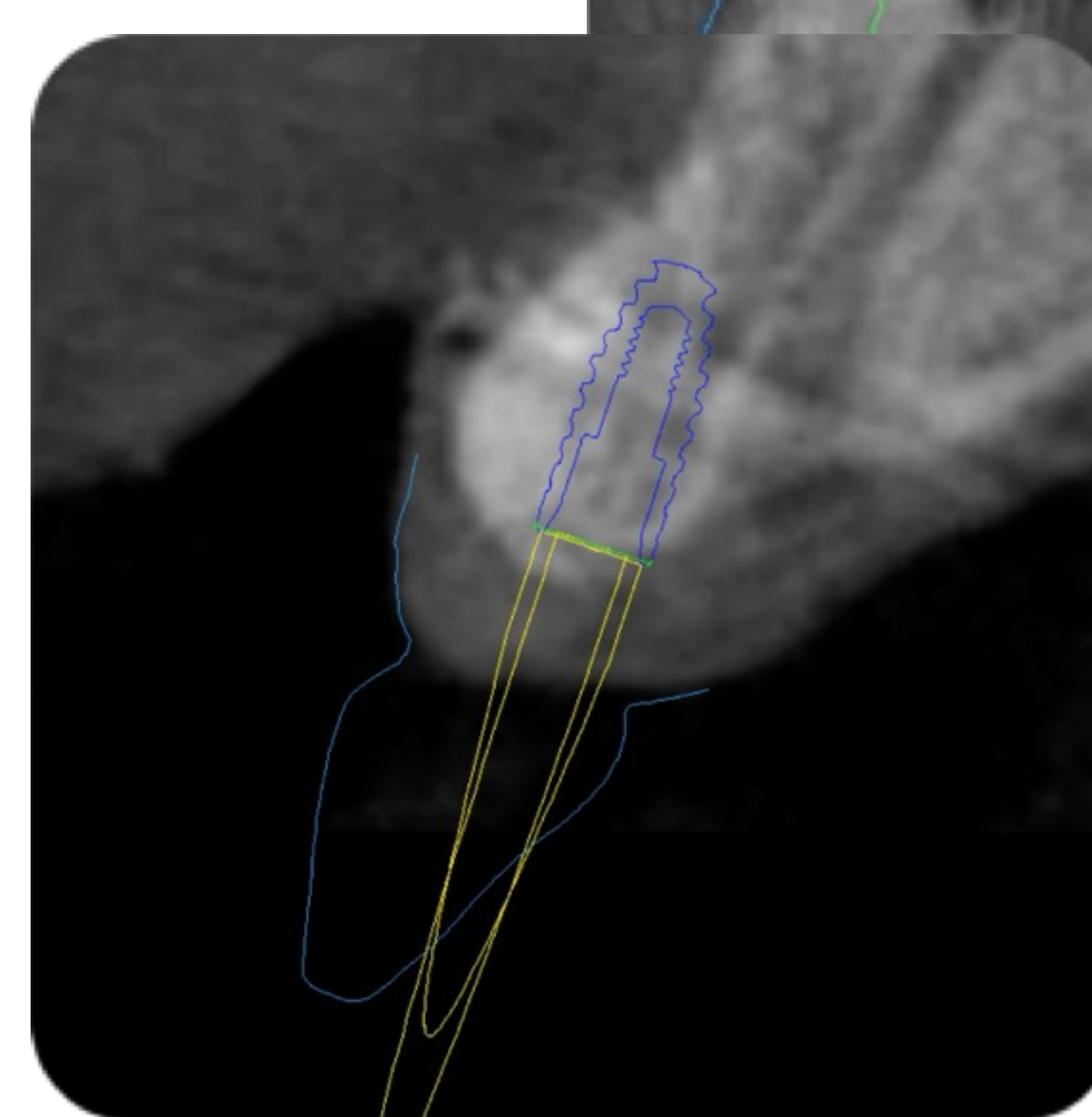
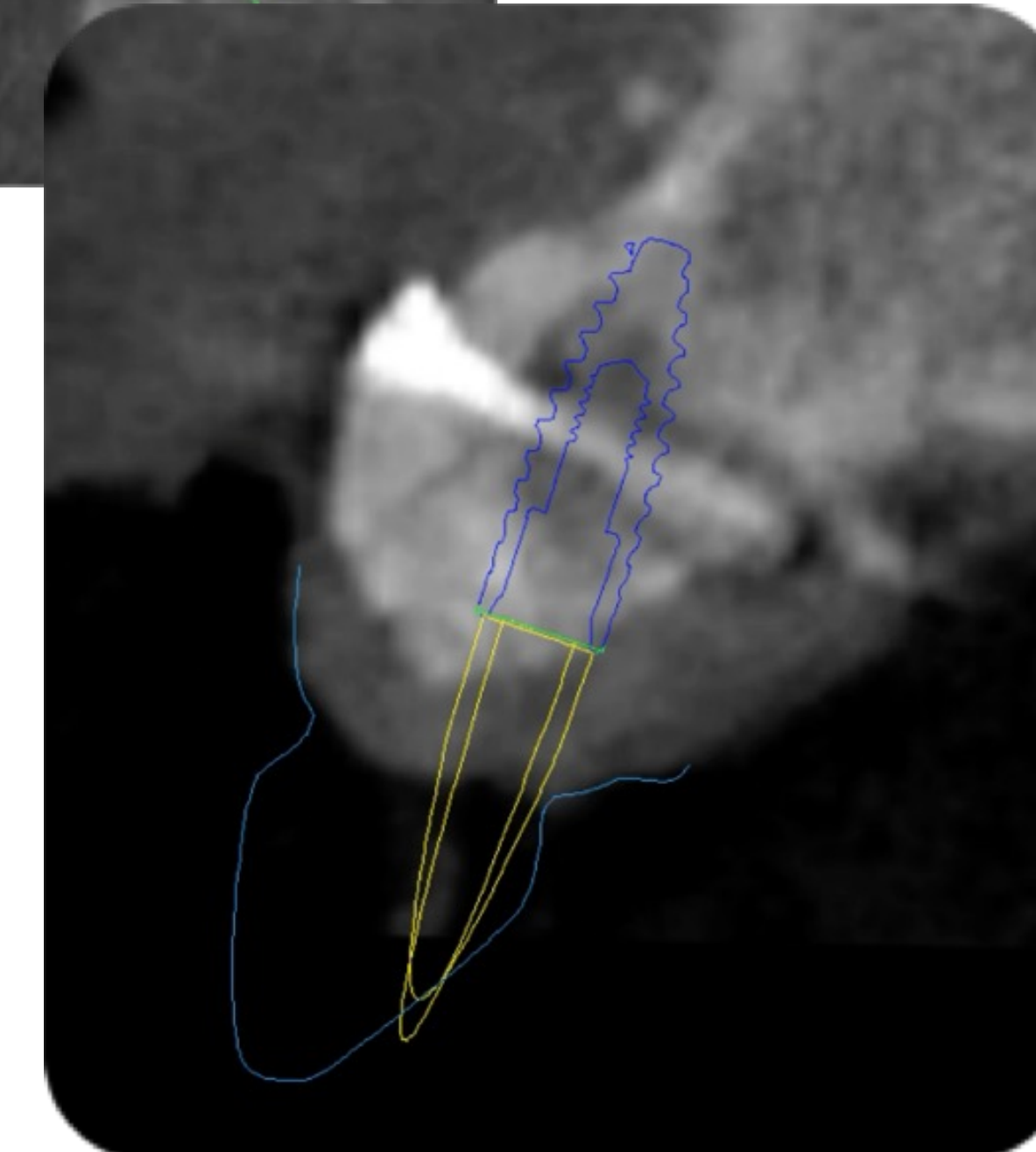
Suture



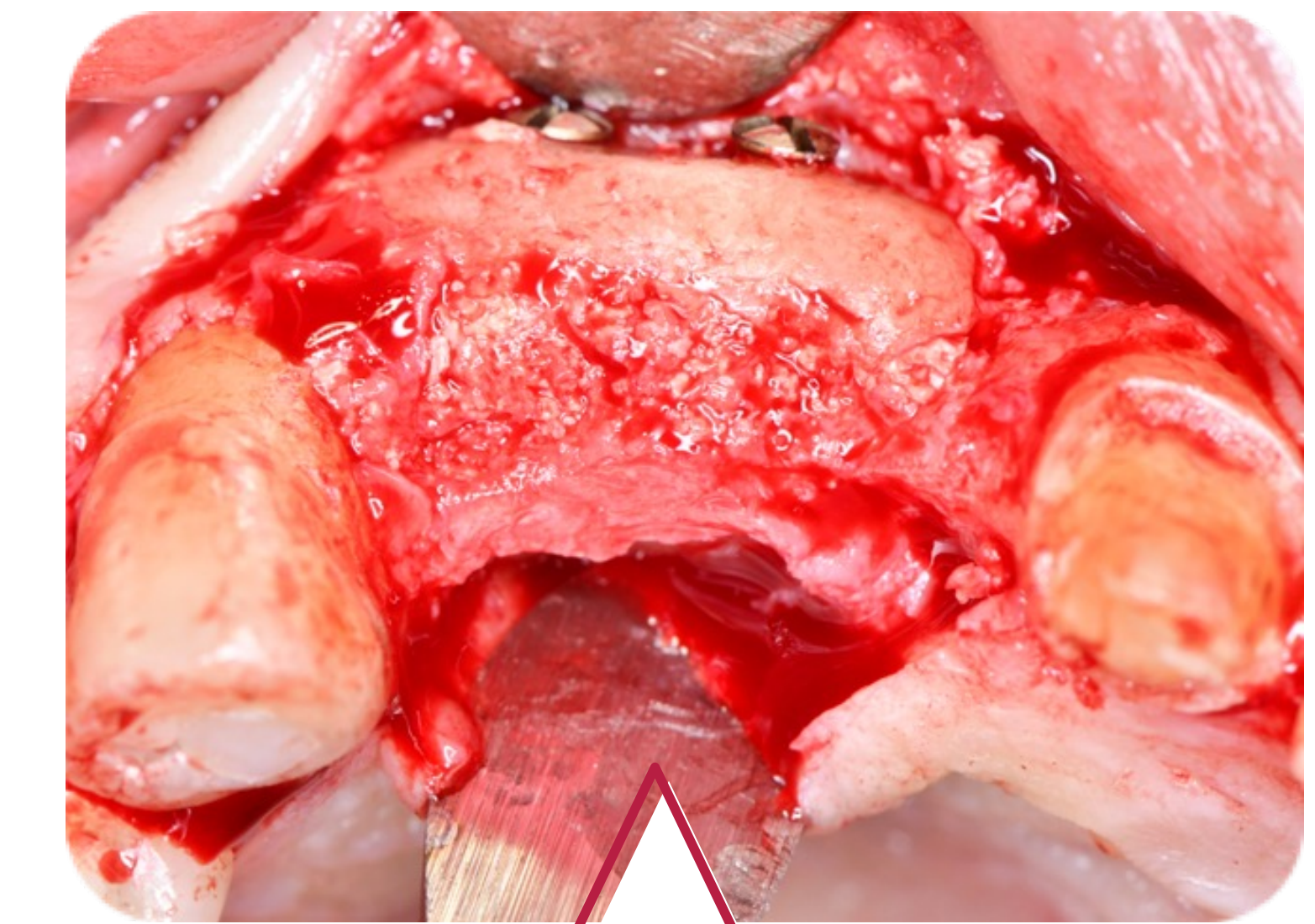
Long term placement - 13 months



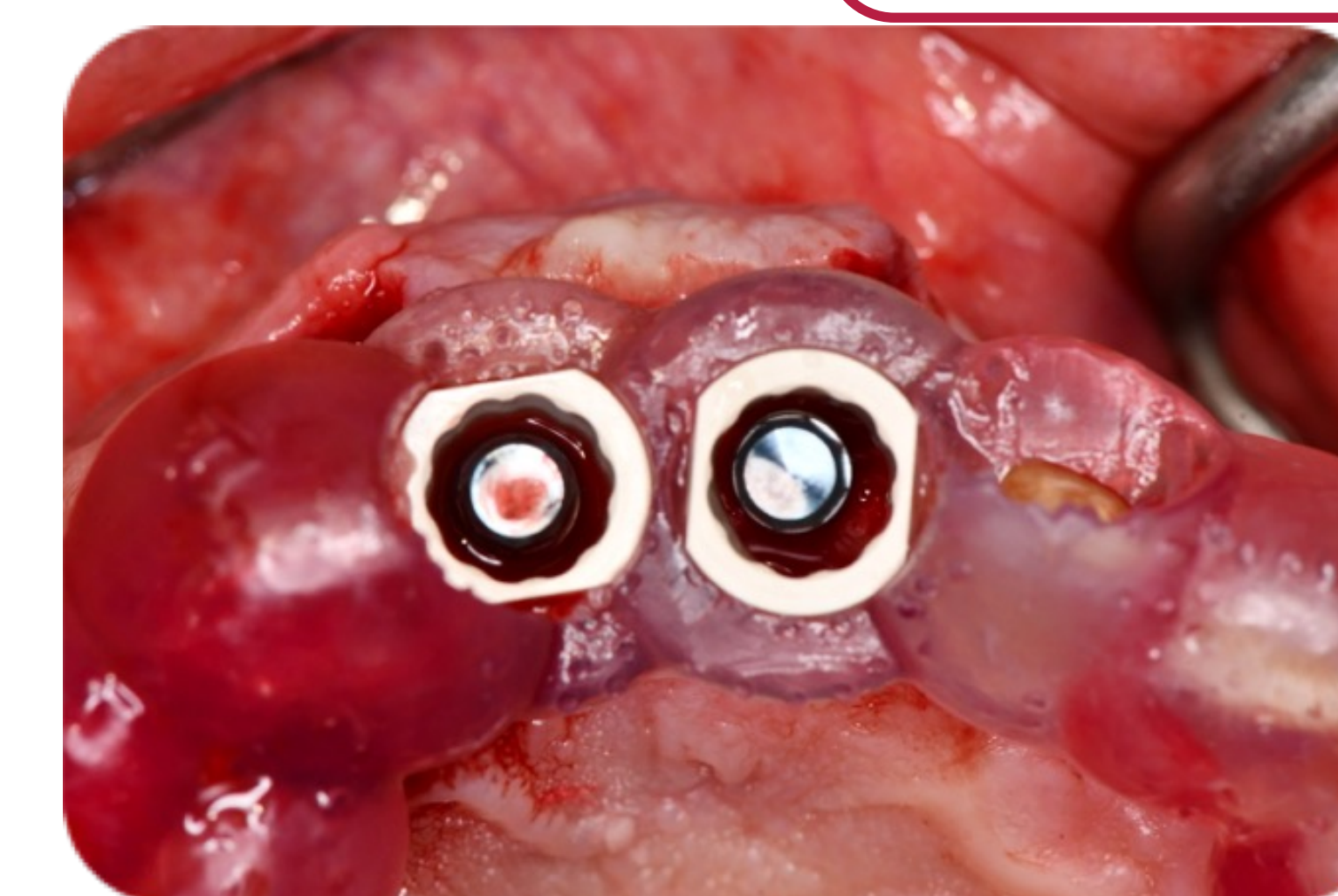
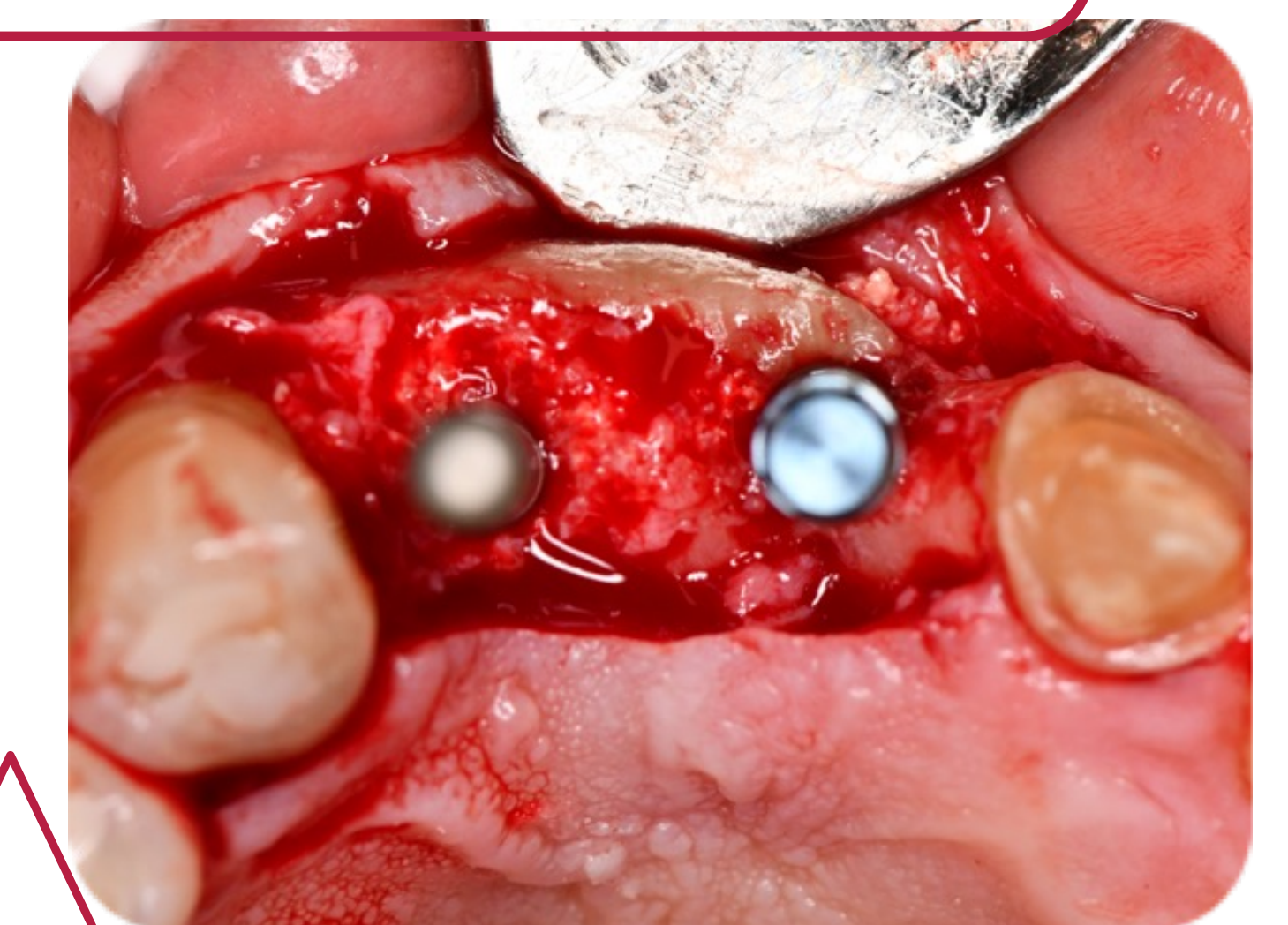
Clinical view



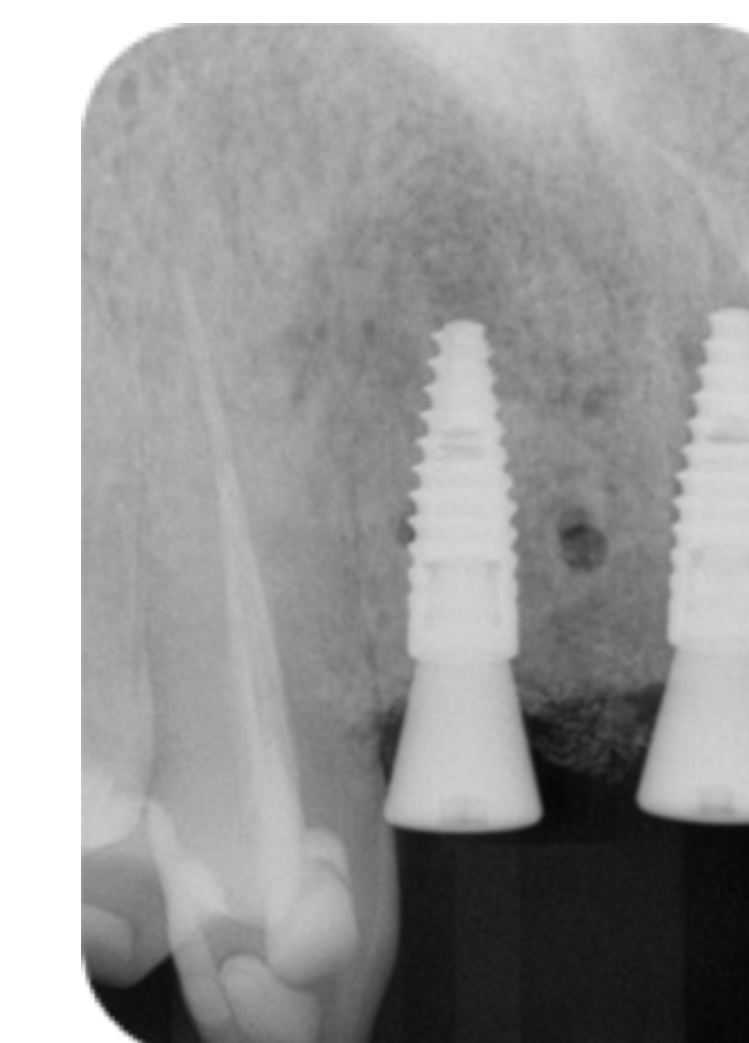
CBCT and VSP
for Guided
Surgery



13 months after graft



Guided implant
placement



References