

Treatment of peri-implantitis using GBR and plasma rich in growth factors: A case report.

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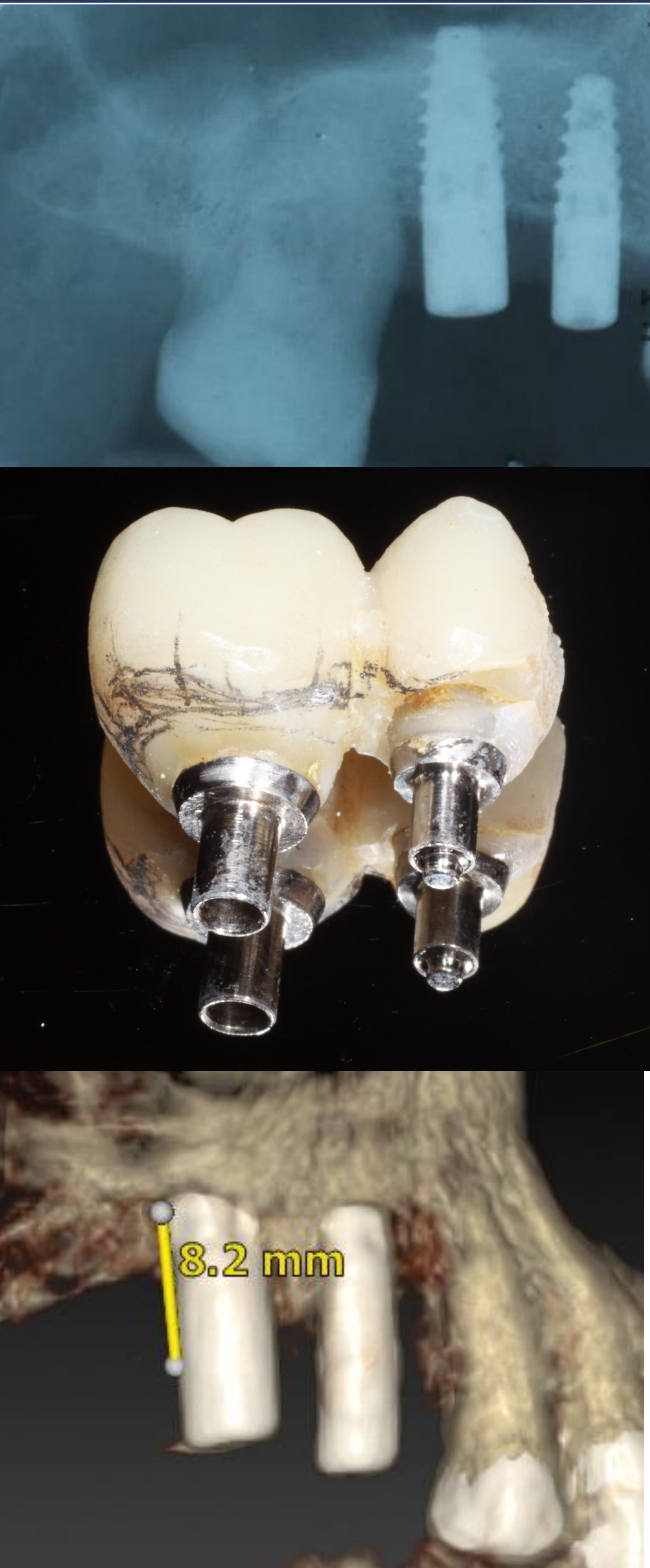
Summary.

Peri-implantitis is a bacterial disease that affects the peri-implant tissues, characterized by inflammation of the peri-implant mucosa and a progressive loss of the supporting bone, which compromises stability, function and survival. The aim of periimplantitis treatment is the infection control and to stop bone loss progression, hence different mechanical, chemical and regenerative therapies have been described.

Case Report.

A 67-year-old female patient apparently healthy, presented implants in the upper right second premolar and first molar area previously placed with simultaneous sinus lift. After 5 years of the implant placement and loaded with deficient provisional restorations, the surrounding tissues showed clinical signs of inflammation and 8 mm probing depth around the molar implant. CBCT showed bone loss on distal and vestibular walls.

INITIAL CONDITIONS



Treatment Sequence.

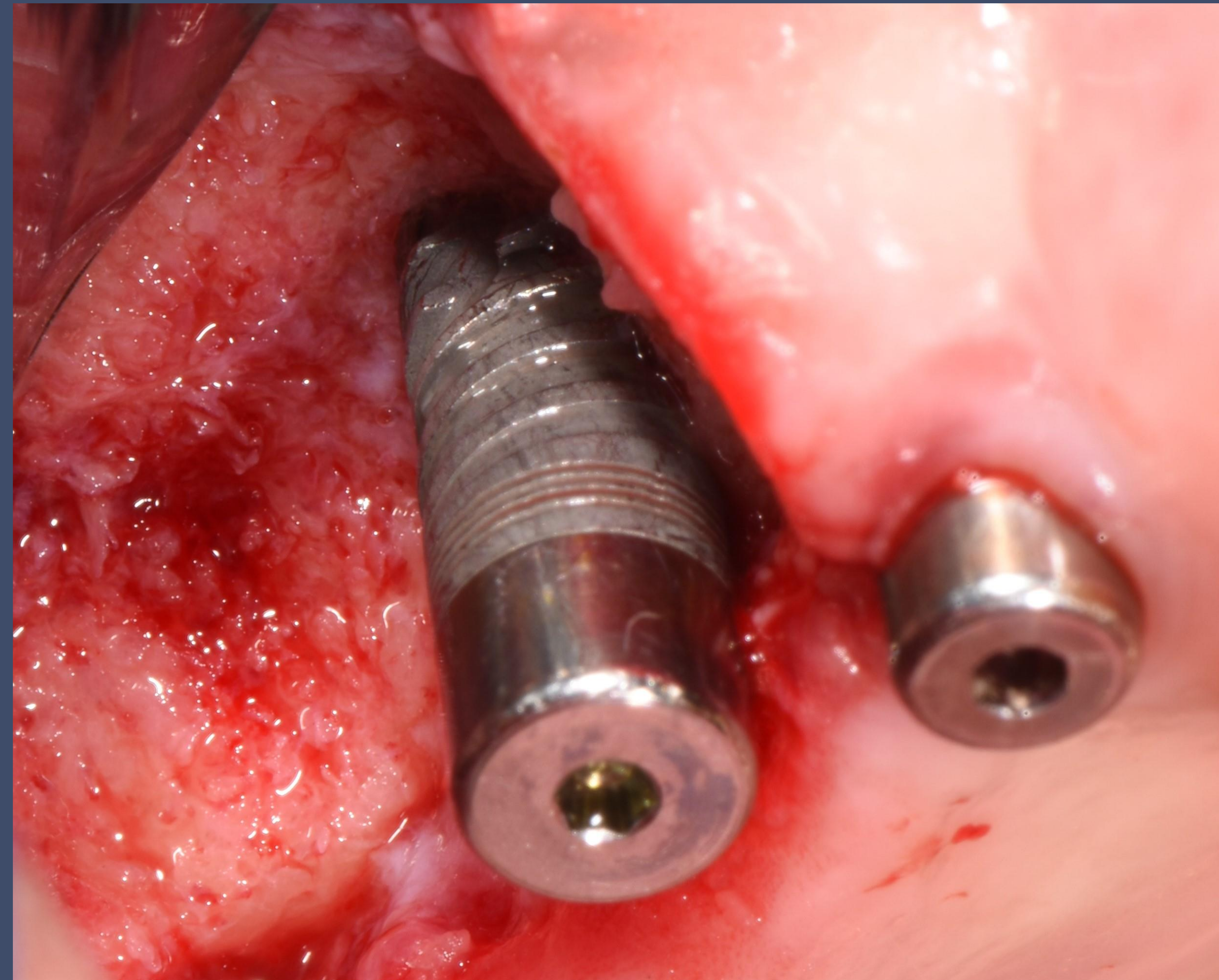


Fig 1 . A full thickness flap was lifted and an infraosseous defect type 1b grade A was exposed; cleaning was performed by ultrasound and conventional curettes.

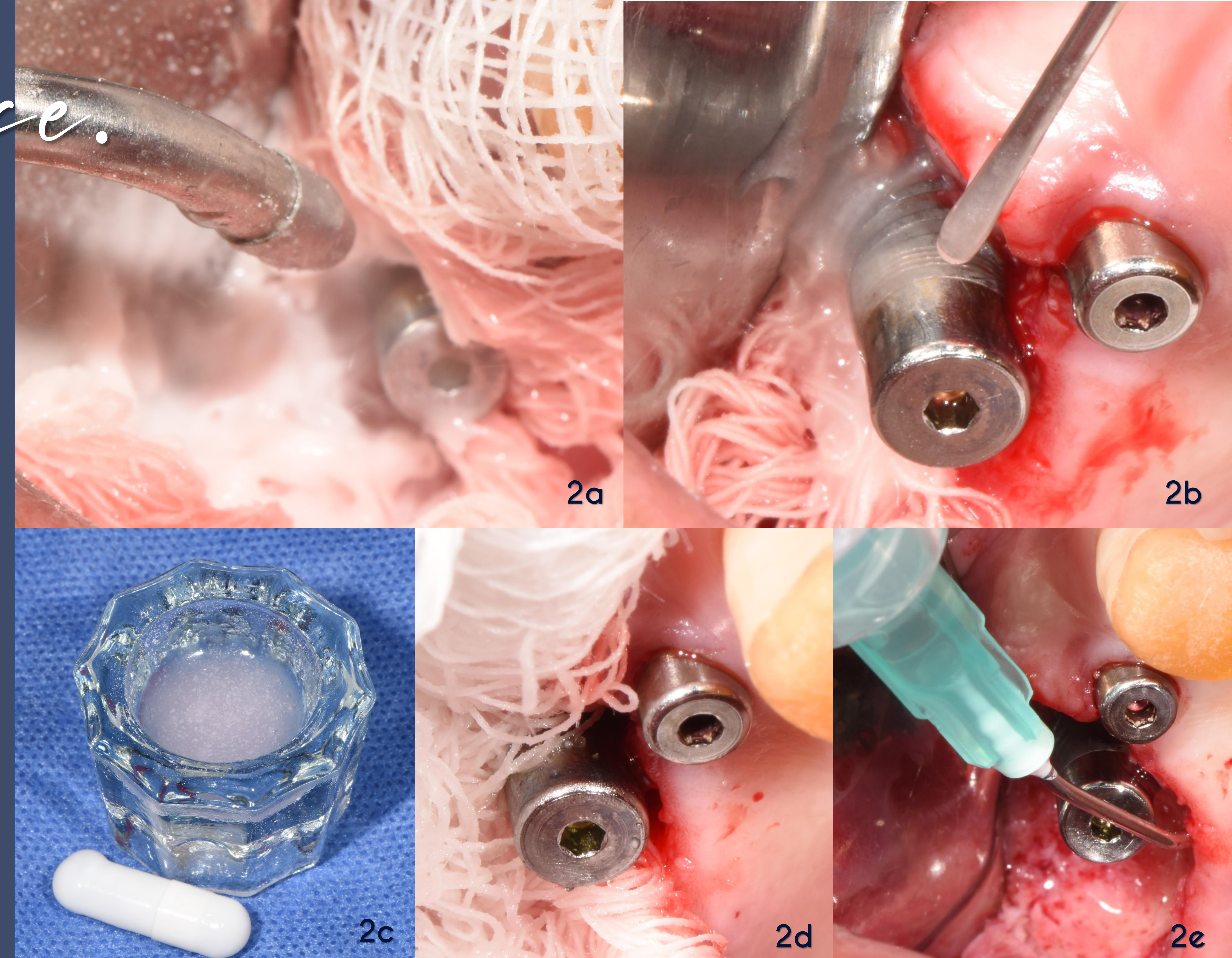


Fig 2a. Implant surface detoxification performed with sandblasting and sodium bicarbonate particles, **(2b)** application of 24% EDTA, again sandblastin, **(2c,d)** placement of a sterile gauze soaked in an amoxicillin 500 mg and chlorhexidine digluconate 0.12% solution, **(2e)** with profuse saline irrigation in between each step.

PRGF protocol & GBR.



Fig 3. GBR carried out with bovine-derived xenograft previously agglutinated in a Plasma Rich in Growth Factors (PRGF) clot and covered with a collagen resorbable membrane, which was also covered by a fibrin membrane prepared in advanced from the PRGF.

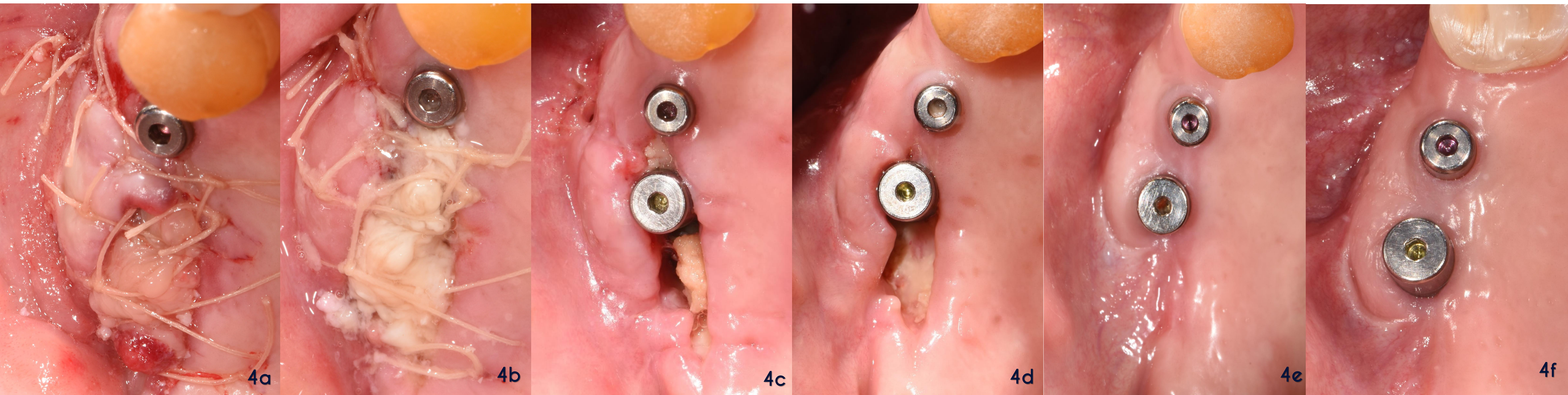


Fig 4a. Wound closure was done with nylon 4-0 sutures. Follow up: **4b.** 3 days, **4c.** 1 week, **4d.** 3 weeks, **4e.** 11 weeks, **4f.** 19 weeks.

Results.

During suture removal, partial wound closure was exhibited, appreciating the fibrin membrane but no signs of infection. After 19 weeks, complete wound closure and radiographically almost complete filling of the bone defect were observed.

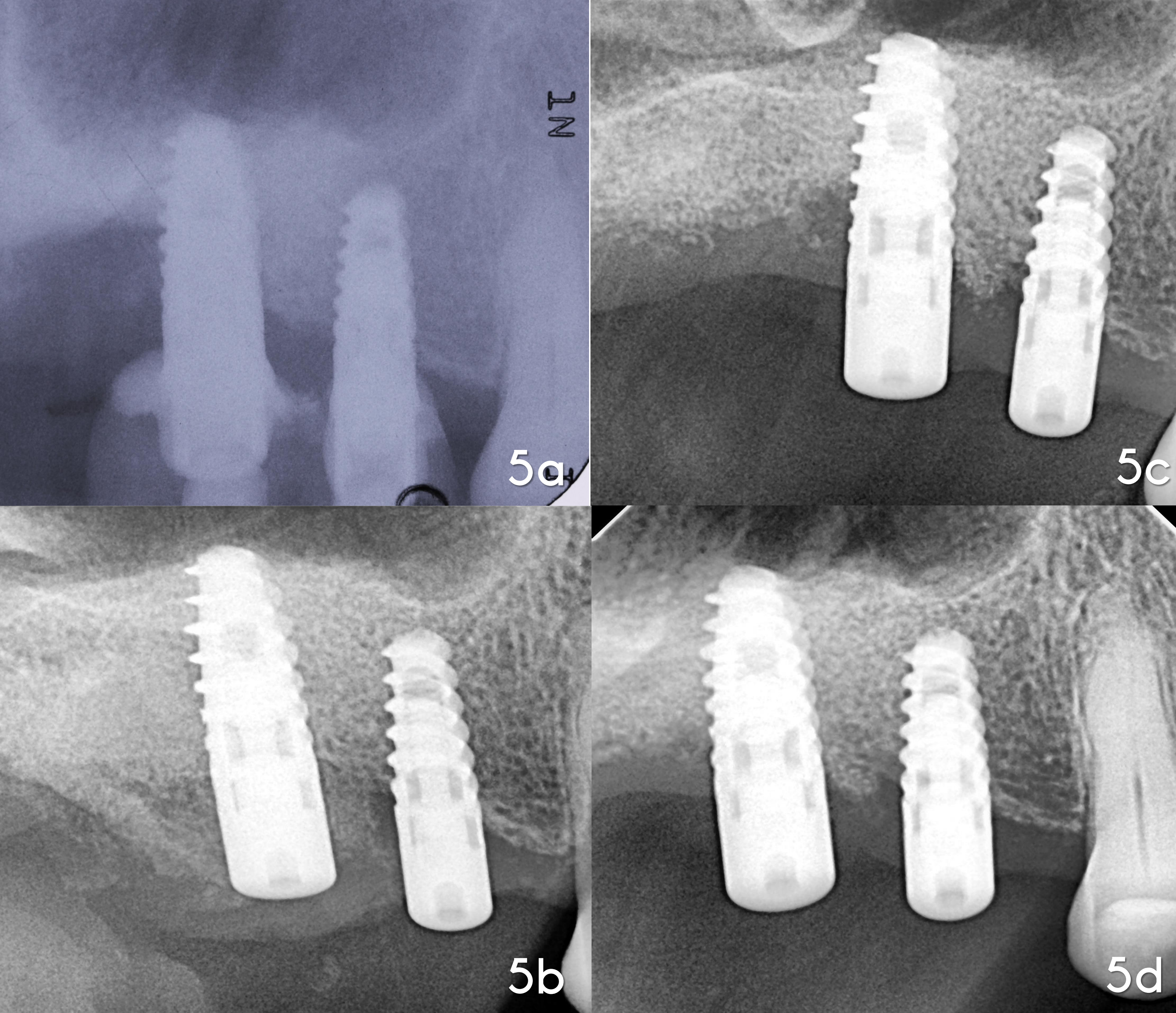


Fig 5a. Initial Condition. **5b.** After surgery.
Follow up: **5c.** 3 weeks, **5d.** 19 weeks.

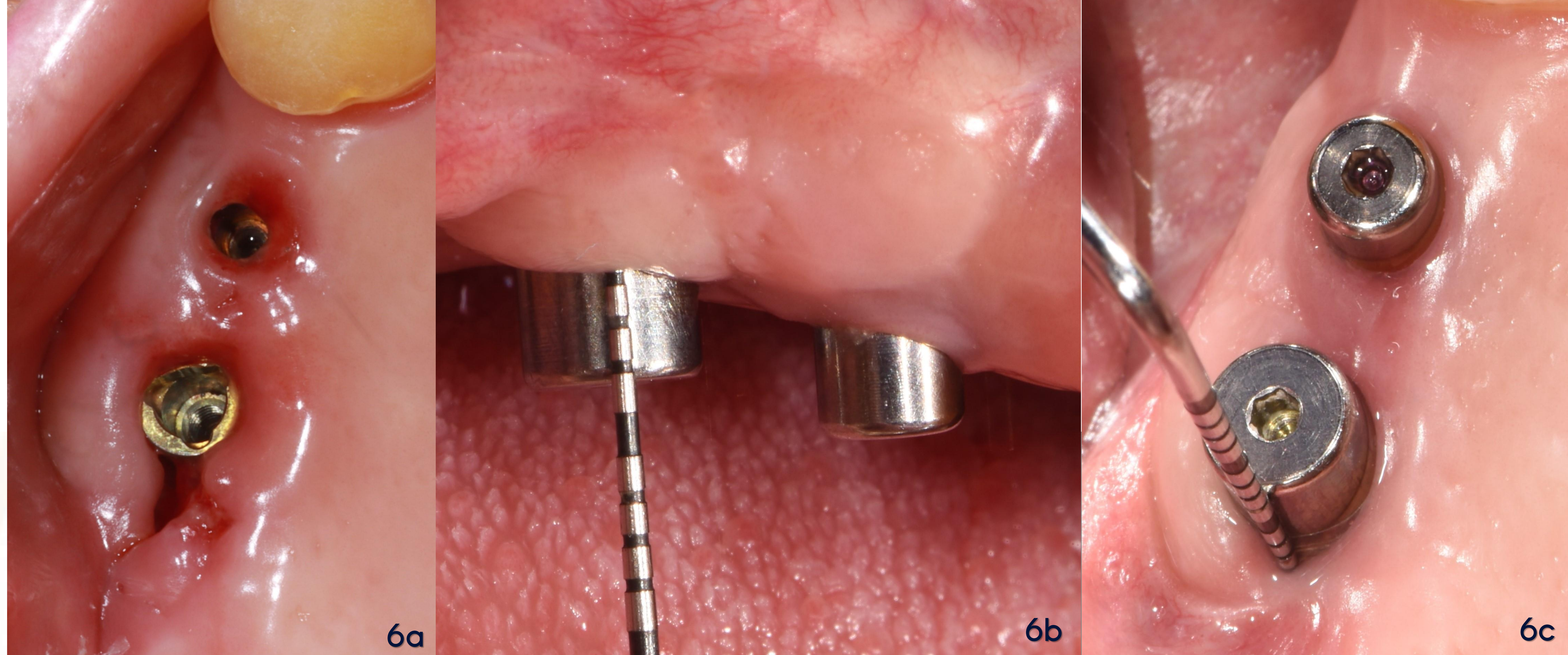


Fig 6a. Initial condition. **Fig 6b, 6c.** Vestibular and distal probing depth after 19 weeks.

Conclusions.

There is no specific consensus for the treatment of peri-implantitis. The use of bone substitutes, membranes and PRGF represent an option for the treatment of type 1b peri-implant defects.

