

ANTERIOR WALL FRACTURE OF THE FRONTAL SINUS: CASE REPORT.

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• INTRODUCTION

Fractures of the frontal sinus originate from accidents of great intensity, the anterior wall being the portion most involved in the continuity solutions of this anatomical structure. Usually, this type of fracture is associated with fractures of the middle third of the face, including naso-orbitoethmoid and zygomatic fractures. Regarding the anatomical integrity of the frontal sinus, it is relevant that all care is performed in order to restore function, prevent infections, isolate the intracranial however, correction of cerebrospinal fluid drainage, these being the objectives of the treatment of fracture of frontal sinus fracture. The improper handling of these conditions can bring complications to the patient, even after several years of the traumatic incident, including sinusitis, meningitis, encephalitis, cavernous sinus thrombosis and brain abscess.

• OBJECTIVE

To present case report was originated of the trauma in the face caused for a motorcycle accident affecting the anterior wall of the frontal sinus treated with fixation of the anterior wall through bicoronal surgical access.

• CASE REPORT

Patient, 28 years old, male, victim of a motorcycle accident who had primary care at the University Hospital of USP, after primary evaluation of the trauma and verification of the absence of neurological deficits, an evaluation by the bucomaxillofacial surgery and traumatology team was requested regarding the trauma of face. On physical examination, edema was observed in the frontal and right supra-orbital regions, with crepitation at local palpation and preserved eye movements. Complementary imaging exams were requested where there was a fracture of the frontal sinus anterior wall, the patient was medicated and referred to the outpatient clinic. After the edema regressed, the patient complained of sinking in the face. The absence of fracture of the posterior plate of the frontal sinus, as well as the persistence of clinical sinus alterations, such as nasal obstruction, rhinorrhea, cacosmia or headache on the part of the patient after the traumatic episode, suggested the maintenance of the functioning of the sinus drainage system within the normality patterns, so it was opted through a bicoronal access the approach for reduction and fixation of fracture of the anterior wall promoting the aesthetic recontour of the region. The patient is in the sixth postoperative month with the sinus functions maintained and satisfied with the aesthetic result.



Fig. 1 and 2: FRONTAL VIEW AND PREOPERATIVE PROFILE, EVIDENCE THE DEEPENING OF THE FRONTAL BONE

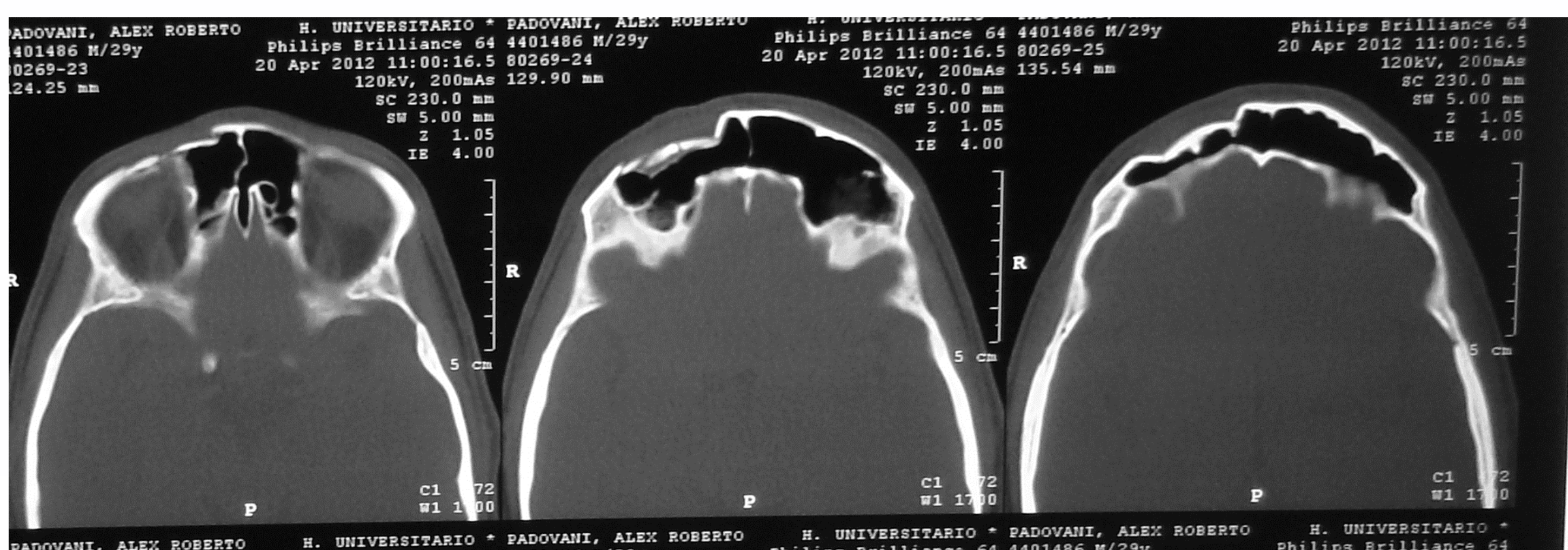


FIG 3 AXIAL TOMOGRAPHIC CUTS WITH HARD TISSUE WINDOW OBSERVE ANTERIOR WALL FRACTURE OF THE FRONTAL SINUS.



Fig. 4: THREE-DIMENSIONAL TOMOGRAPHIC RECONSTRUCTION

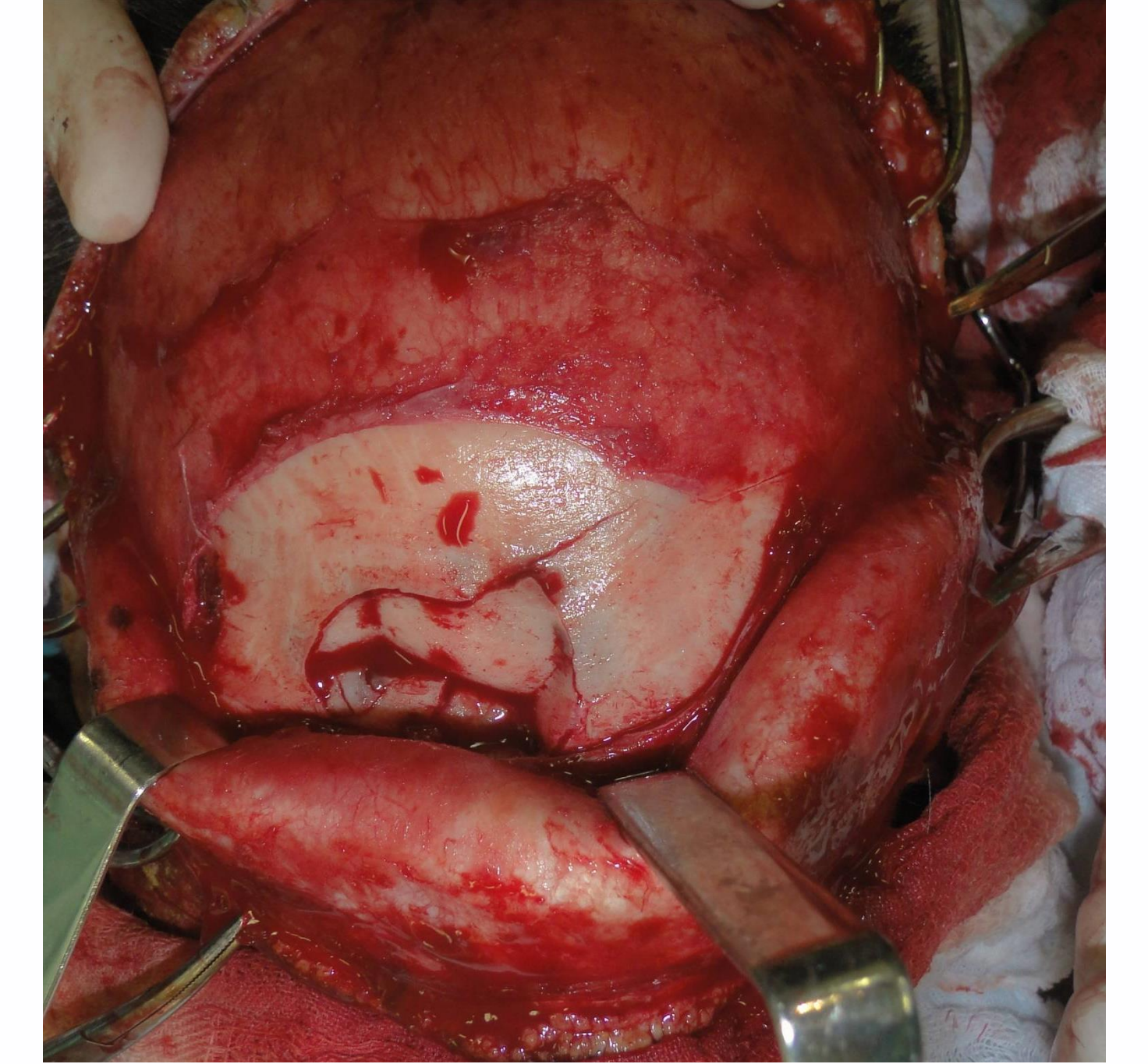


Fig. 5: TRANS OPERATORY

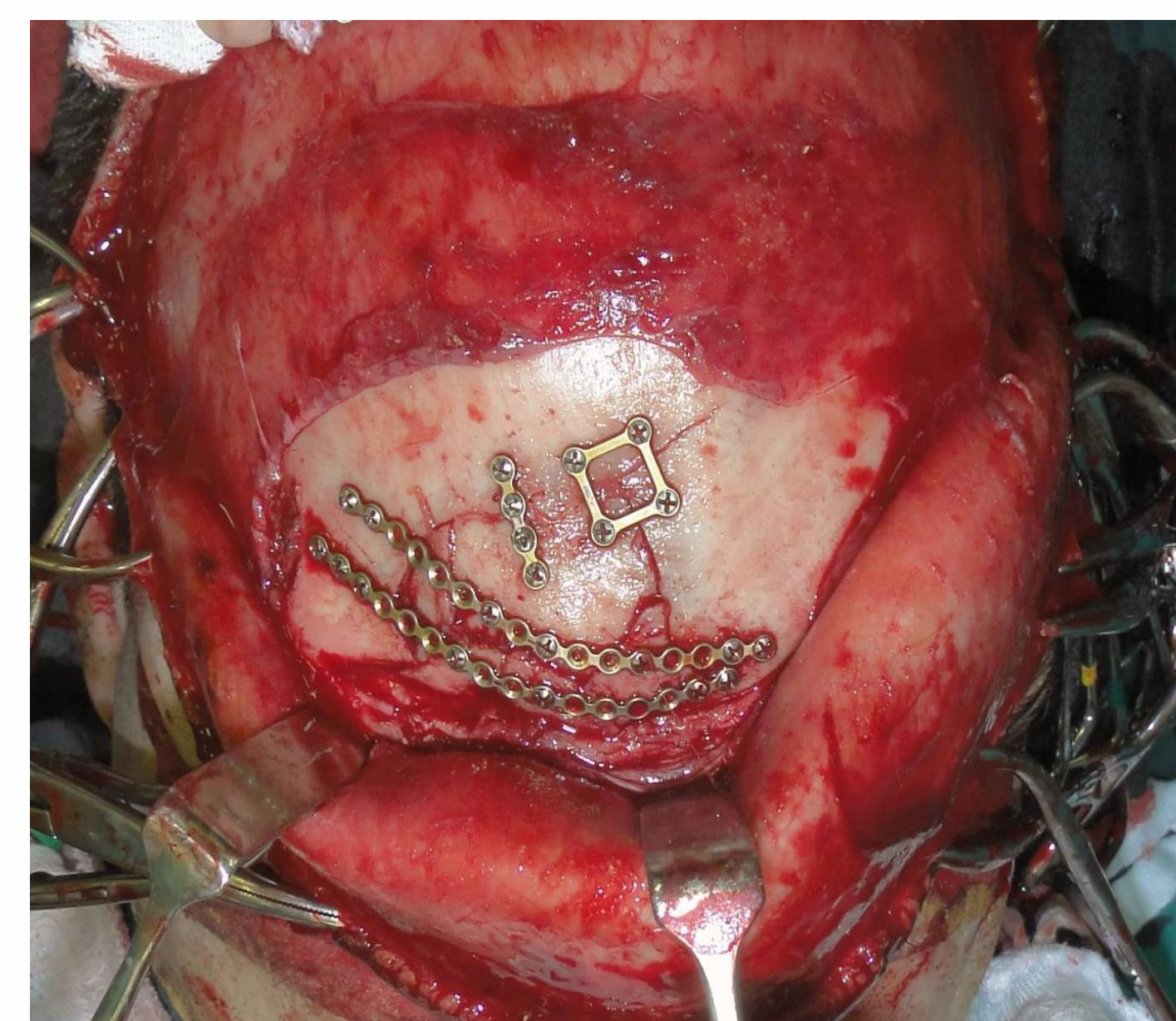


Fig. 6: FRACTURE REDUCTION AND FIXATION



Fig. 7: IMMEDIATE OPERATING POSTS WITH DRAIN OF PORTOVAC MAINTAINED

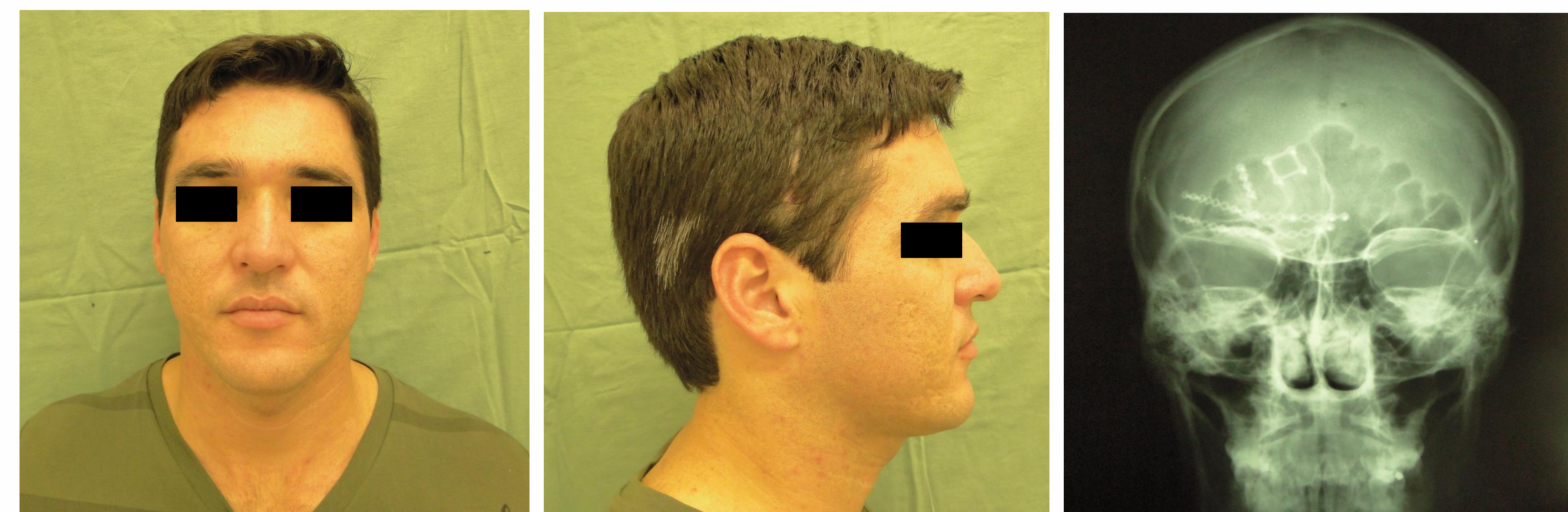


Fig. 8- 6 MONTHS OPERATIVE POST

• RESULTS

The bicoronal access, allowed ample visualization of the operative field, allowing the reduction and fixation of the fracture, promoting the aesthetic contour of the region and with a scar hidden in the scalp. During a 6-month clinical follow-up, maintenance of sinus functions and patient satisfaction with aesthetics were observed.

• CONCLUSION

The bicoronal access for reduction and fixation of fractures in the region of the anterior wall of the frontal sinus showed satisfactory results after 6 months of clinical follow-up, where the maintenance of sinus functions and satisfactory aesthetic results were verified.

• BIBLIOGRAPHIC REFERENCES

- 1-Gerbino G, Roccia F, Benech A, Caldarelli C. Analysis of 158 frontal sinus fractures: Current surgical management and complications. J. Craniomaxillofac Surg. 2000; 28:133-9
- 2-- Goodale RL, Montgomery WW. Experiences with the osteoplastic anterior wall approach to the frontal sinus; case histories and recommendations. ArchOtolaryngol 1958;68:271-83.
- 3- Whited RE. Anterior table frontal sinus fracturesLaryngoscope 1979;89:1951-5.
- 4- Tiwari P, Higuera S, Thornton J, et al. The management of frontal sinus fractures. J Oral Maxillofac Surg 2005;63(9):1354-60.