



FIGURE 5: Panoramic X-ray before the excision of mucoepidermoid carcinoma.



FIGURE 6: Panoramic X-ray after reconstruction by FRF.



FIGURE 7: Clinical preoperative.



FIGURE 8: One-year follow-up.

soft tissues in a single-staged procedure [8]. The most common donor sites for the reconstruction of maxilla and mandible with FRF are the iliac crest, scapula, radial forearm, and fibula flap [5].

Few complications of FRF in the recipient sites are reported such as vascular thrombosis and second primary squamous cell carcinoma (SCC). Many factors have been proposed to be associated with the development of complications after FRF reconstruction such as patients' age, tobacco use, and prolonged surgical time [8–10].

There are four suggested hypotheses for the development of SCC as a complication of FRF; which are the presence of cancer cells into the flap during the implementation of tumor ablation, lymphatic dissemination of the original tumor, the existence of another tumor in the donor site before raising the flap, and the exposure of the skin of the flap to a stimulus in the oral environment that is not normally experienced [8].

The etiology of PG is still unclear. About 30–50% of the patients with PG have a history of local trauma. Infection and poor oral hygiene are frequently reported as triggering factors. Also, the hormonal cause may be added to these factors [4].

In a retrospective study by Jané-salas et al., it is suggested adding incorrect or inadequate prosthesis (implant cap or healing cap, poorly adjusted suprastructures, etc.) as possible causative factors [1]. In general, the association of PG with implants is still controversial.

In the literature, it is reported a presence of hyperplastic/inflammatory response and formation of granulation tissues around implant abutments that are implemented in orally rehabilitated sites by FRF [5]. Anitua and Pinas stated that the implant-related PG seems to be a response to the same stimulus that triggers tooth-related PG. They confirmed the absence of significant correlation between PG and the marginal bone loss around dental implants [6].

In the presented cases, there is only one case of PG around implants in the rehabilitated sites. The poor oral hygiene was the common trigger factor in all the cases, in addition to trauma from the upper left second molar in the first case, pericoronitis related to a partially erupted lower right third molar in the third case, and the poor stability of an upper RPD in the fourth case.

The incidence of recurrence of PG is estimated to be between 2.9 and 8.2%, with a slight increase in cases associated with implants [1]. In the second case, the recurrence was observed probably due to the incomplete elimination of suspected triggering factors. While in the other three cases, the recurrence was not observed. These suggest that the reconstruction by a FRF may be an aggravating condition rather than being a triggering factor of PG.

It seems that the triggering factors are aggravated due to the limitation in oral functions, the difficulty of maintaining the oral hygiene measures following the reconstruction surgery, and the difference in nature between the skin of flap and the normal oral tissues when they are subjected to stimuli, resulting in the development of PG in relation to the site of reconstruction rather than in the common sites that are reported in the literature.