Immediate implant placement in patient with epidermolysis bullosa and osseointegration:

A case report

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Abstract

Background: Epidermolysis bullosa (EB) is classified among the hereditary skin disorders. Defined as tendency of the skin and mucosa to form bullae and vesicles after minor friction and trauma. Oral features include repeated blistering, scar formation and alveolar bone resorption. **Aim/H:ypothesis:** To describe the rehabilitation of esthetic zone using endossous implants in patient diagnosed with epidermolysis bullosa affecting. the oral mucosa and to evaluate osseointegration of these implants. **Materials and Methods:** A 20-year-old woman with epidermolysis bullosa, enquired to the possibility of restoration through endosseous implants in anterior maxilla. The surgical phase included atraumatic extractions of anterior teeth (22,21,11,12,13) and immediate placement of 4 implants to decrease the number of surgical operations required to avoid soft tissue ulceration and patient discomfort. The restorative phase included an implant supported fixed prosthesis. **Results :** Implant success rate was 100% after 12 months following prosthetic loading. Patient satisfaction with the implant therapy was very high. **Conclusions and Clinical implications:** This case suggests that immediate implants placement provide support for a fixed prosthesis in the case of patients with epidermolysis bullosa and considerably improving these patients' quality of life. This pathology is a soft tissue disorder that does not affect the bone and therefore does not compromise osseointegration, which explains the high success rates.

Background and Aim

Epidermolysis bullosa (EB) is a group of disorders characterized by the presence of mechanical fragility of the skin with recurrent development of blisters and vesicles, resulting from minor mechanical friction or trauma. This disorder is classified into 3 major categories :EB simplex, junctional EB, and dystrophic EB, by the level of tissue cleavage after trauma and 25 subtypes.

The systemic features of this disease include blisters all over the body, especially in areas of friction, such as the hands, feet, elbows, and knees that rupture, leaving painful ulcerations that often heal with soft tissue contraction. tissue contraction frequently causes digit syndactyly, which leads to stump formation, and stenosis of the upper one third of the esophagus, which causes dysphagia. Oral features include repeated occurrence of blisters, erosions, and scars, which lead to limited mouth opening, ankyloglossia, and elimination of buccal sulci. Severe periodontal disease and early loss of dentition are frequently observed, leading to alveolar bone resorption and jaw atrophy.

Oral rehabilitation in these patients with implant-supported fixed prostheses has proved to be a treatment with high success rates that provides significant improvements to their quality of life. However, implant treatment is hindered by the soft-tissue fragility, the limited oral opening, and the severe maxillary atrophy..

Methods and Materials

A 20-year-old women diagnosed with epidermolysis bullosa, with blisters all over the body, painful ulcerations, scars, soft tissue contraction and syndactyly. (fig1) Clinical examination revealed microstomia ans limited oral opening accompanied by absence of the buccal sulcus due to scarring, bleeding blister in mucosa. In addition, multiple carious lesions with notable deterioration of dental tissue were observed. The panoramic radiograph and computed tomography scan showed the remaining teeth to be in poor condition. For esthetic matter, we have started with the anterior maxilla and four immediate implants were placed after teeth extraction.

Fig1 Pretreatment views of the patient showing, (a) the lesion of the hand, (b) limited mouth opening, (c) initial view, (d) initial occlusal view of the maxilla , (e,f,g)initial computed tomography scan

fig2:

(a)careful tooth extraction, (b) intraoral view after tooth extraction, (c),four anterior implants were placed in socket of 12,11,22,23, (d),final suture after surgery (e) healed tissue in the maxilla after four , (f) six months

Results

Fig3: (a), healed soft tissue after eight months, (b) connexion of abutments in the maxilla prior to placement of fixed prosthesis, (c) clinical view and panoramic radiograph after prosthesis placement, (d) patient's smile after treatment.

Conclusions

Implant success rates for dental implants placed in patients with epidermolysis bullosa in the reviewed data varied from 97.7% to 100%. EB is a soft tissue disorder, with no involvement of hard tissue; thus, it is reasonable that the success rates would be comparable to those obtained in healthy patients. The use of endosseous implants in the prosthetic rehabilitation of edentulous with these patients might provide a considerably better outcome than traditional prosthetic methods. Implantation surgery poses an additional problem because, apart from the soft tissue incision and flap detachment that can produce bullae. This treatment option appears to be favorable for patients with severe symptoms compared to other alternatives that involve removable dentures which irritate the oral mucosa.

References

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