Multidisciplinary treatment of an implant complication in esthetic area: A case report

Eugenio Longo
University of Genoa, Genoa, Italy

SIdP – 2019 G. Vogel Award Session

Clinical evaluation/ Diagnosis

At first visit a 19 years old patient came to our office for pain and swelling on a not restored implant placed by another colleague one year before; she told us that previous treatment was a post extractive implant placed on upper left central incisor after a motorcicle accident; implant showed bleeding on probing, purulence and movement, clinical evidence of integration lost. Periapical rx and clinical evaluation revealed an uncorrect mesio-distal positioning (too near to the upper left lateral incisor) and a vestibular-palatal wrong axis; patient wasn't happy about esthetic, she felt pain and discomfort and ask us to solve her problem; patient showed an altered passive eruption, a wide mesio-distal prosthetic space in corrispondence of upper left central incisor, vestibularization and rotation of the upper left lateral incisor and a soft tissue concavity and bone loss on the upper left central incisor.

Treatment goals

Patient was 19 years old at time of first visit, with high esthetics demand. According with her, we proposed to remove the implant, the position and the loss of integration didn't let us to restore it; after an orthodontic therapy (most of all, in order to gain the ideal prosthetic space of upper left central incisor and to modify rotation and inclination of upper left lateral incisor) we opted not to place a new implant for two reasons: patient was too young (22 years at the end of orthodontic treatment), and due to the previous experience she refused to place an implant again and ask us for any alternative options; so we decided to treat alterate eruption, modify the soft tissue thickness in correspondence of central incisor and to use an adhesive maryland bridge restoration to replace the missing incisor.

Description of clinical/surgical procedures

After implant removal , we treat patient with orthodontics in order to gain a correct prosthetic space on missing incisor and modify teeth position, in particular on left upper lateral incisor. Two years after orthodontic treatment we decide to modify soft tissue thickness at central incisor site with double connective tissue plattform graft and to treat altered passive eruption to improve the lenght of clinical crown; in a first step we open a full thickness flap in correspondence of neighbors teeth (in order to perform osteoplasty and ostectomy and split thickness in the graft area; due to the initial coronal displacement of the flap, after 2 months we reshape gingival margin with a little diode laser gingivectomy to complete crown lenghtening procedure and improve teeth esthetic appearance; 4 months after, a PMMA provisional maryland bridge was placed and after soft tissue conditioning we inserted a zirconia-ceramic maryland bridge restoration.

Clinical outcomes

After final restoration insertion, patient was extremely satisfied; she showed a natural smile, with a good soft tissue blending and armonic gingival margin, without any implant placement; ceramic maryland bridge was very stable and patient likes colour and shape; modern adhesive techniques are not provisional solutions to replace missing teeth, and due to the relationship modification between implants and teeth in esthetic area year after year (even more in young patients), soft tissue modification and adhesive restorations are valuable solutions to replace missing teeth in esthetic area; the possibility to treat simultaneously altered passive eruption and soft tissue gap , reduced number of surgeries and treatment time, probably less than an implant placement with a bone and soft tissue reconstruction, with high patient's satisfaction.