

Theoretical introduction into the single tooth implant placement

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As we have already read in the introduction of Prof. Lang we are in the area of the single tooth implant placement in the advanced stadium of implantology, as already small mistakes in the planning or in the execution can lead to an unsatisfactory result – both at the surgery field and at prosthetics.

Although this book is mainly emphasizing the implant prosthetics we have to point out in the following the surgical relevant criteria.

1. The extraction

In the normal dental practice the extraction is very often an ill thought out exercise with the primary goal being to remove the tooth quickly and without any significant effort.

In the area of the implantology the extraction, however, as well as the later wound dressing means the first and very often underestimated partial step for the successful implantology treatment.

Whenever a tooth has to be extracted the dentist should clear in advance of this which prosthetic solution will be chosen.

In this way, grave mistakes can be avoided which otherwise involve more invasive pre-implantology surgeries.

As shown in picture 1 the vestibula lamella will be often lost by the extraction. This is on the one hand caused by the fact that during the wound healing the contraction of the blood clot takes place and is on the other hand depending heavily on the size of the existing periodontal inflammatory situation.

Here the extraction technology as well as the future wound dressing are the important factors.

Fig. 1



Generally the following criteria should be taken into consideration at the extraction:

- The periodontal soft tissue should be released to avoid tearing or cutting off the marginal gingiva (i. e. Periotome).
- At multi-rooted teeth the roots will be separated (i.e. Super Slim-drill).
- The tooth should be carefully loosened in his alveolus without damaging thereby the vestibulare lamella (Luxator).
- The gentle removal of the tooth is executed by slight pull and small movements in coronal direction.
- Afterwards the careful curettage of the alveolus and special attention of the vestibula lamella takes place.
- Now, the wound dressing followed attention has to be paid to which technologies will be chosen to preserve the alveolar process in his dimension (i. e. Bio-Col-Technique, immediate implant placement).

2. The pre-implantology surgery

In the daily practice we are often consulted by patients who already have a reduced alveolar process. It is significant in which region the area to be treated is located and which aesthetic needs the patients has for their prosthetic treatment.

By using models of a situation and diagnostic wax-up the patient can be shown the problems and different possibilities for an ideal solution:

Depending on the size of the defect and the aesthetic requirements there are the following possibilities:

- **Modelling of dental neck tooth 11 (picture 2)**
- **Defect veiling by pink porcelain (picture 3)**
- **Augmentation with our without implant placement (picture 4)**
- **Bone block (picture 5)**
- **Alveolar ridge splitting (picture 6)**

The above mentioned augmentation technologies can be used either alone or in combination with each other and they should be completed by the wide range of the soft tissue surgery techniques.



Fig. 2: Modelling of dental neck.



Fig. 3: Defect veiling



Fig. 4: Augmentation

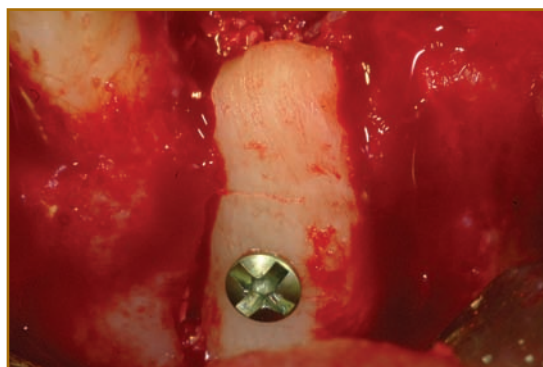


Fig. 5: Bone block