

## 6 Summary

The instrument kit *ApEx* presented in this work does not intend to replace established standards for the surgical extraction of tooth roots. *ApEx* should be seen as an additional, supplementing method, with allows extracting deeply destroyed teeth in a careful, simple and fast manner.

That has considerable advantages. The extraction attempts with *ApEx* show, that after *ApEx* extraction the soft and hard tissue wound presents itself in a way, as if it was a simple extraction case accomplished with lever and forceps. If not already forbidden by a chronic process before, conventional procedures can lead to texture- and volume-changing damages, that the intention of an immediate implant insertion might be through-crossed. Additional augmentative measures can be necessary.

If this case should actually arise, then only the two-phase procedure – at first the augmentation, later the implantation – can be permitted. That is not only straining and expensive from patient view, separate it increases the risk of a failure of the implant-based prosthetic rehabilitation from a cosmetic view.

Finally the conventional procedures for the extraction of tooth roots possess general and local risks, which are more or less extended using *ApEx*, so that free spaces for later subsequent treatment remain to be available and are able to be used.

A further advantage of an extraction therapy accomplished with *ApEx* is the reduced need of strength for extraction treatment, because the extruding force needed refers from the special mechanics. Since the root which has to be removed remains to the instrument, arising accidental damages and complications of conventional procedures could not happen.

As examples of unintentionally and iatrogenically conditioned occurrences could be mentioned: The lever or the forceps which slide away might damage neighbouring teeth, gingiva, blood vessels or nerves, the risk of translocating parts of the tooth root into the maxillary sinus and into the soft tissue, possibility of fracturing the lower jaw.

Seeing our increasingly demanding patients, who anyway presuppose technical qualities, the equipment offers an excellent possibility to satisfy the rising expectations in terms of a perfect prosthetic final result.

