



Pulp fiction – or pulp fact?



Many endodontic treatments are initiated in teeth with the clinical pulpal diagnosis 'irreversible pulpitis'. In these root canals there is most probably no biofilm attached to the walls of the root canals or in the dentinal tubules. The infection causing the pulpitis is located in the pulp tissue or in the advancing caries process. If the quality of this first endodontic treatment would be high, the success of the endodontic treatment would always be better than when we have to do a retreatment or a treatment of an infected root canal system. The shortcomings of our endodontic instruments in cleaning the root canal system or removing the biofilm are of less importance. By improving the quality of the first root canal treatment, we could improve oral health and at the same time reduce the cost of dental treatments. Although solutions for a problem seem to be simple, the reality is often more complicated.

In fact, our chemo-mechanical treatment is perfect for the treatment of irreversible pulpitis but not to achieve the healing of apical periodontitis. This is because complete biofilm removal is impossible due to the complicated root canal system with oval extensions and dentinal tubules and the possible presence of an extraradicular biofilm.

We should accept that the healing of apical periodontitis is impossible. We are able to reduce apical periodontitis or manage apical periodontitis, as we can and should manage caries. However, once tooth structure is infected, it is infected forever. Therefore, we should change our endodontic vocabulary and introduce the management of apical periodontitis instead of the healing of apical periodontitis.

Is it a problem that the tooth structure contains microorganisms? Our whole body is full of microorganisms and frequent bacteraemia with oral microorganisms are the rule, not the exception. Our immune system can deal with the microorganisms otherwise we would not walk around on earth. So therefore it depends on the reaction of the host. Like 'personalised medicine', we have to treat the individual and prefer a biological approach instead of a mechanistic one – and then it really comes down to management and patient care.

A handwritten signature in black ink that reads 'Luc van der Sluis'.

Luc van der Sluis