

Evidence on immediate implant placement

Prof. Dr. med. dent. Liviu Steier highlights some of the most informative papers and reviews available on immediate implant placement

These two major literature reviews on Medline make useful reading:

Quirynen et al. (2008): 'How does the timing of implant place-

ment to extraction affect outcome', and Schropp et al. (2008): 'Timing of implant placement relative to tooth extraction.' Quirynen assessed types of complications such as implant loss,

marginal bone loss, soft-tissue complications and esthetics. The drawn conclusions proved that less than five per cent of the placed implants were lost. Schropp et al concluded that

chronic infection does not represent a classic contraindication for immediate implant placement.

Chen et al. (2004) in their review, 'Immediate or early place-

ment of implants following tooth extraction: review of biologic basis, clinical procedures, and outcomes', conclude the following regarding the bone periimplant defect at the time of placement: A) horizontal defect up to 2mm healed with spontaneous bone fill if implants with rough surfaces used, B) horizontal defects larger than 2mm requested augmentation procedures (including membranes and grafts). However they concluded that: 'Short-term survival rates and clinical outcomes of immediate and delayed implants were similar and were comparable to those of implants placed in healed alveolar ridges'.

Christopher et al. (2008) reviewed the literature for: Esthetic outcomes of immediate implant placement. They found a highly significant change in crown height due to marginal tissue recession ... with no difference seen between implant systems.

Qahash et al. (2006) studied 'Bone healing dynamics at buccal peri-implant sites'. As sticking with the rule, they say that 'the bone-anchoring surface of endosseous implants should be placed within the alveolar envelope at implant surgery' is not always achievable and that alternative strategies have been introduced. There are, A) minimally invasive exodontia protocols, and B) adjustment of implant design and many more. As a major finding, the authors describe the fact that whenever implants were placed close (within the 2mm limitation) to the buccal bone crestal remodelling occurred. The conclusion they draw is that: 'The width of the buccal alveolar ridge should be at least 2mm to maintain the alveolar bone level.'

Maurício et al. (2009) looked into the 'Effect of a xenograft on early bone formation in extraction sockets'. In short terms, (two weeks' time after extraction) healing seemed to be delayed showing large amounts of woven bone in the non-grafted area and only small amounts in the grafted regions.

Maurício et al. (2009) also researched: 'Ridge preservation with the use of Bio-Oss collagen'. They started with findings of previous research which demonstrated the delay in healing when graft material was placed in the alveolar socket and performed a six-month-long study in dogs. As graft material particular xenogeneic graft comprised of Bio-Oss collagen (Bio-Oss; Geistlich, Wolhusen, Switzerland) was used. The major conclusion after analysing the results was that: 'The placement of a biomaterial in an extraction socket may modify modelling and counteract marginal ridge contraction that occurs following tooth removal.' ■

IMAGING SYSTEMS | TREATMENT CENTRES | HANDPIECES | HYGIENE SYSTEMS | CAD/CAM SYSTEMS

Welcome to the 3rd dimension with GALILEOS

A total 3D imaging solution with endless possibilities

Sirona's 3D cone beam tomography sets new standards

- One short, single scan with low radiation dosage
- 3 way fast collimation
- Superior diagnostics with intuitive software
- Workflow integration of planning systems and surgical guides for implantology

GALILEOS brings a new dimension in security and quality of diagnosis

Enjoy every day. With Sirona.

Sirona Dental Systems Ltd., 7 Devonhurst Place,
Heathfield Terrace, Chiswick, London W4 4JD

Telephone: 0845 0715040

e-mail: info@sironadental.co.uk

www.sironadental.co.uk

The Dental Company

sirona.