Parodontologic aspects of prosthodontic treatment

Dr. Peter Hermann
• Finishing line accuracy of restorations and fillings have an influence on periodontal health and might lead to periodontal illnesses. (Gera, 2002). Insufficient restorations increase plaque accumulation and widen the biological width with attachment loss. (Broadbent et al., 2006).
Kovács Viola, Tihanyi Dóra, Gera István: The incidence of local plaque retentive factors in chronic periodontitis

- Radiographically 6% of the restorations had correct approximal marginal adaptation.
- Only at the 19% of the fillings were found perfect marginal fitting.

177 out of the randomly selected 200 radiographs met the incursion criteria and could be evaluated.

Criteria: chronicus periodontitis, in one quadrant >5mm approx. bone loss

Fogorvosi Szemle, 100.évf. 6.sz. 2007. 295-300
• Prevalence of CPI 3, CPI 4 is significantly higher in case of FPD (35% vs. 25%).
• Apparent difference in case of mild periodontitis.
• Finishing line accuracy of restorations and fillings have an influence on periodontal health and might lead to periodontal illnesses in case of insufficient accuracy. (Gera, 2002). Insufficient restorations increase plaque accumulation and widen the biological width with attachment loss (Broadbent et al., 2006).

• In Hungary the widely used knife edge preparation leads to overfitting contour of restorations as a local irritative cause of gingival inflammation that might lead to periodontitis.

• Prevalence rate of CPI 0 is 7% higher among those with NO FPD. Ginigvitis (CPI 1) is 4% more prevalent in case of FPD.
Where do parodontologic aspects have to be considered during the prosthodontic treatment?

- Taking the anamnestic data
- Treatment planning
- Tooth preparation
- Taking impression
- Making casts
- Try in of the framework
- Try in of the denture
- Cementation of temporary or permanent restoration
- Recall
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To splint or not to splint?
• Do not do splinting if it is not necessary:
  - Flexibility of the jaws!
  - Force distribution
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Patient cases of IVth, Vth year students and postgraduate students of the Department of Prosthodontics
Finishing line preparation?

No definite line= „knife-edge”
Definite finishing line= „chamfer”
Why to make a chamfer?

• Create place for veneering material
• Border line between prepared and unprepared surfaces
• Protection of the periodontium
• „support the crown”-shoulder preparation
What about the previously prepared abutment-teeth?
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Biologic width

\[ d: \text{biologic width} \]

(Gera I: Parodontológia, Semmelweis Kiadó, Budapest, 2005.)
Single Cord Technique

Double Cord Technique

good access

poor access
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CONCLUSIONS

• TRAUMA FROM OCCLUSION CANNOT INDUCE PERIODONTAL INFLAMMATION

• TRAUMA FROM OCCLUSION CANNOT INDUCE PERIODONTAL TISSUE BREAKDOWN

• TRAUMA FROM OCCLUSION RESULTS IN BONE RESORPTION AND WIDENED PDL

• IN TEETH WITH PLAQUE INDUCED PERIODONTITIS TRAUMA FROM OCCLUSION MIGHT ENHANCE THE RATE AND SPEED OF ATTACHMENT LOSS

• TRAUMA FROM OCCLUSION CAN BE A CO-FACTOR FOR TISSUE DESTRUCTION

From the IV. th year Gnathology lecture (István Gera)
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Do NOT Forget it:

The periodontium of the tooth always has to be considered for a healthy, well functioning, esthetic restoration!
Thank You for Your Attention!