

Survival Of Furcation-Involved Molars After Resective Treatment

Language: English

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Date/Event/Venue:

29.06. - 01.07.2006

Europerio5

Madrid

Objectives

The aim of this retrospective case series was to describe the clinical outcome of furcation-involved teeth that underwent resective therapy.

Material and Methods

Patients

- 11 patients (6 females; mean age 53 years)
- All patients underwent active (antiinfectious and corrective) periodontal therapy at the Section of Periodontology of the Department of Conservative Dentistry of the University Hospital of Heidelberg and took part in regular supportive periodontal therapy (SPT)
- 15 teeth (1 upper premolar, 12 upper molars and 2 lower molars) with advanced furcation involvement (grade II and III)

Furcation involvement

- The measurements were done with a curved, scaled Nabers probe (Q 2N [SS+SSC] Nabers colour coded, Hu Friedy, Chicago, IL, USA) and the defect characterised according to the following classification (Hamp et al. 1975):
- Degree 0: the furcation entrance can not be assessed with a probe.
- Degree I: horizontal loss of periodontal tissue support up to 3 mm.
- Degree II: horizontal loss of support exceeding 3 mm, but not encompassing the total width of the furcation area.
- Degree III: horizontal through-and-through-destruction of the periodontal tissue in the furcation.

Resective techniques

- 1 trisection
- 2 hemisections
- 12 root resections
- 2 teeth were restored with fillings, 7 with crowns and 6 with double crowns

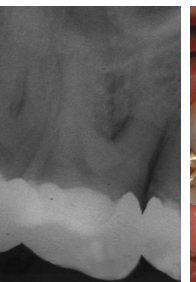


Fig.1 Situation baseline

Fig.2 Hemisection intrasurgical

Fig.3 Situation baseline

Fig.4 Trisection intrasurgical

Fig.5 Situation baseline

Fig.6 Root resection intrasurgical

Results

During the follow-up period (minimum: 20 months, maximum: 132 months), 2 out of 15 resected teeth (13.3%) had to be extracted because of fractures of the remaining roots.

The remaining 13 (86.7%) teeth showed a stable clinical outcome without signs of gingival or periodontal inflammation.

Baseline				Last SPT				
	mean PD (mm)	mean VAL (mm)	PCR (%)		mean PD (mm)	mean VAL (mm)	PCR (%)	BOP (%)
Patient 1	3.08	3.48	44	Patient 1	2.49	3.12	11	14
Patient 2	4.96	4.96	35	Patient 2	2.43	4.45	40	18
Patient 3	3.70	3.70	79	Patient 3	2.88	2.88	45	21
Patient 4	3.41	3.41	68	Patient 4	2.08	3.77	15	10
Patient 5	3.63	3.94	57	Patient 5	2.25	3.13	39	7
Patient 6	3.69	4.03	68	Patient 6	2.33	4.34	50	6
Patient 7	3.33	3.33	92	Patient 7	1.8	1.88	25	0
Patient 8	3.66	3.66	23	Patient 8	2.82	3.66	15	6
Patient 9	3.20	3.20	33	Patient 9	2.47	4.26	0	5
Patient 10	4.64	4.64	39	Patient 10	2.36	3.43	24	18
Patient 11	6.15	6.94	20	Patient 11	2.25	3.93	43	12

Table 1: Baseline

Table 2: Last SPT

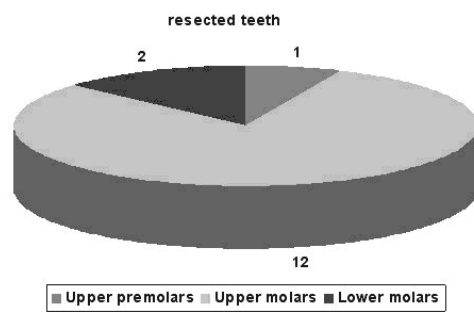


Fig.7 resected teeth

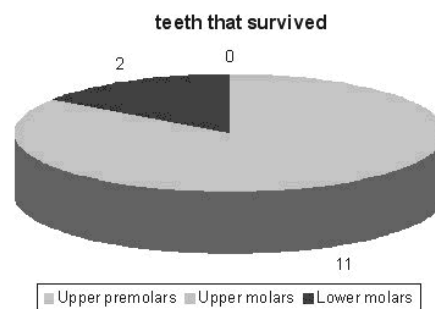


Fig.8 teeth that survived

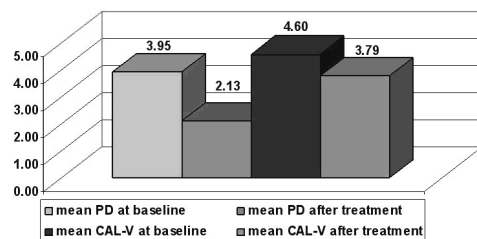


Fig.9

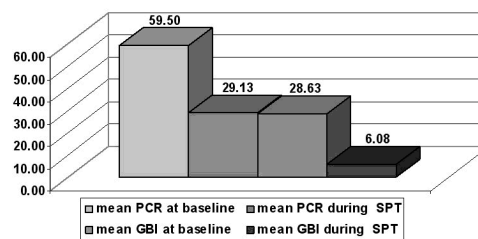


Fig.10

Conclusions

If furcation involvement has advanced to grade II or III, resective treatments should be considered as possible therapeutic strategies. Regular periodontal maintenance and sufficient coronal restoration of the root resected teeth are important preconditions for long-term survival.

This Poster was submitted by Dr. Isabel Simon.

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Material & Methods II

Resective techniques

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- 2 hemisections
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Results I

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Results II

Baseline				Last SPT			
	mean PD (mm)	mean VAL (mm)	PCR (%)		mean PD (mm)	mean VAL (mm)	PCR (%)
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Patient 4	3.41	3.41	68	Patient 4	2.08	3.27	15
Patient 5	3.63	3.94	57	Patient 5	2.25	3.13	39
Patient 6	3.49	4.03	68	Patient 6	2.33	4.34	50
Patient 7	3.33	3.33	92	Patient 7	1.8	1.88	25
Patient 8	3.46	3.66	25	Patient 8	2.82	3.66	15
Patient 9	3.20	3.20	33	Patient 9	2.42	4.26	0
Patient 10	4.44	4.64	39	Patient 10	2.36	3.43	24
Patient 11	6.15	6.94	20	Patient 11	2.85	3.23	43

Tab.1

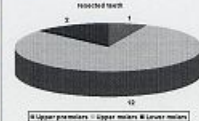


Fig.7

Tab.2

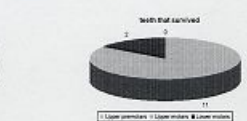


Fig.8

Results III

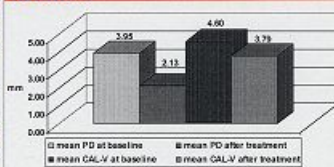


Fig.9

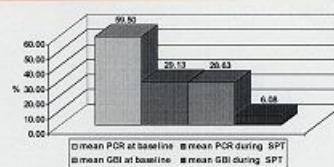


Fig.10

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