



Preserving Poor Bone Support Abutments with Swing-Lock RPD & Splinted Prosthesis in Terminal Dentition – Clinical Case Report

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Abutment Analysis & Denture Designs

Author (year)	Periodontal status of distal abutments in RPD
Carreiro et al 2016	Risk of gingival recession & Periodontal pocket ↑ Plaque index ↑ Caries & fracture risk: 15% Tooth mobility similar

Tooth #	27	28
Mobility	Gr I	Gr I
Probing depth	ML 322 MB 313	323 323
Bone loss (%)	20	25
Crown height	Insufficient ferrule -> CLP	
Prognosis	fair	fair

Tooth #	22	21	20	19
Mobility	wnl	wnl	Gr I	Gr I
Probing depth	ML 322 MB 224	233 333	233 322	333 332
Furcation involvement				BII LII
Bone loss (%)	20	20	30	50
Prognosis	fair	fair	fair	Q

Introduction - Background

Removable prosthesis play an important role for reconstruction of distributed or long-span edentulous area. When losing antagonists after extraction of hopeless teeth, the determination of vertical dimension & preservation of key abutments became important. The clinical case report demonstrated patients with compromised remaining dentition, who underwent successful treatment with maxillary single denture & mandibular swing-lock RPD for full mouth rehabilitation, with alteration of vertical dimension.

Case Description

In terminal dentition, evaluation of periodontal condition and restorability of abutments are essential. The possible interaction between RPDs and oral tissues should also be concerned. Swing-lock RPD can assist for patients with few remaining teeth or missing key abutments. With idealized surveyed crowns, tilted teeth can be recontoured to gain more sufficient guide planes, appropriate undercut, hidden labial bar, even enhance periodontal support through splinting teeth, that will lead to more successful outcome.

Case Characteristic & Results

Patient 1



PMH	Diagnosis	Rehabilitation Plan	Altered VD	Jaw Relationship & Occlusal Scheme	Arch form	Specia problem list
Traumatic brain injury s/p ORIF Bipolar disorder, with suicide attempt Dystonia, suspected antipsychotics related History of old pulmonary tuberculosis Drug addiction with Ketamine for 2~3 years	Edentulism & Dental caries #27 & 28: Pulp Necrosis & Symptomatic apical periodontitis Insufficient ferrule	Upper single denture Lower Kennedy Class I (swing lock) #27 28 CLP & splinted surveyed crowns	VDR: 85mm Set VDO: 83mm	R't & L't: class I group function	Upper: square Lower: ovoid	Motor Disturbance & Handicapped Loss of Posterior Support Frenum & Muscle pull Inadequate abutment height Poor oral hygiene

Patient 2



PMH	Diagnosis	Rehabilitation Plan	Altered VD	Jaw Relationship & Occlusal Scheme	Arch form	Specia problem list
Aortic aneurysm s/p Bentall Hypertension (130/80 mmHg) Hyperlipidemia	Generalized chronic periodontitis Stage IV grade C #20 poor RCF quality-> endo re-tx Multiple ill-fitted prosthesis with secondary caries	Upper single denture Lower Kennedy Class I (swing lock) #20 21 22 splinted surveyed crowns	VDR: 76mm Set VDO: 73mm	R't: class I group function L't: class II group function	Upper: ovoid Lower: ovoid	Remaining teeth w/o antagonist Uncertain restorability of abutments under ill-fitted long-span prosthesis