

PATIENT INFORMATION

PERSONAL PROFILE:

Age: 20 years old

Gender: Female

Occupation: Student

Nationality: Saudi

Marital Status: Married

Blood pressure: 124\78 mmHg

Weight: 52 kg

Height: 166 cm

LEVEL OF COOPERATION

The patient is cooperative

CHIEF COMPLAINT

“I noticed that my teeth are mobile, my gum Receded and bleeds with bad smell”

MEDICAL & FAMILIAL HISTORY:

No data present regarding medial and family history

DENTAL HISTORY:

- Restorative Treatment and Hygienist Visit in 2008.
- Orthodontic Treatment in 2009.

ORAL HYGIENE HABITS:

- Type of Tooth Brush: Hard toothbrush
- Brushing Technique: Vertical and Horizontal Strokes
- Frequency: Twice/Day

EXTRA-ORAL EXAMINATION

- Temporomandibular Joints: Right and left without clicking or deviation.
- Lymph Nodes: No masses, Swelling, or Lymphadenopathy.

INTRA-ORAL EXAMINATION:

OCCLUSAL EVALUATION:

The patient generally has class I right and left molar relationships, with normal overbite and slight increase in the overjet.

PERIODONTAL FINDING:

OVERALL GINGIVAL DESCRIPTION:

The gingiva had generalized red inflamed margin that was spongy and edematous in consistency and presented with rolled gingival margins. The interdental papillae were generally blunt and not filling the embrasure space.

There were generally adequate attached gingiva in the maxilla and inadequate or almost missing in the lower anterior.

The patient has thin gingival biotype and multiple area with stillman's defect.

High frenum attachment.

The plaque index reached 83% while bleeding index was 100%.

RADIOGRAPHIC EXAMINATION:

Panoramic Radiograph

Sinus pneumatization around #26

Full mouth Radiograph:

Plaque Retentive Factors:

- Caries: #24D #25M #35D #45D Incipient caries
- Calculus: #12(M), 11(D&M), 21(M), 26(D), 36(D), 31(D), 41(M&D) and 45(M).

Alveolar Bone Assessment:

Horizontal Bone Loss (%):

50-60%	50 -70%	30-70%
50 – 70%	50 – 80 %	50 - 60 %

Crestal Bone Density: Generalized loss of crestal bone density.

Vertical Defects: At # 15(D),14(D&M) ,13(M) ,11(D) 24(M) ,26 (D) ,36(D) ,44(D) and 46 (D)

Crater between #23, 24.

Furcation Radiolucencies: Furcation radiolucency was present at #16, 26, 36, 46 and 47.

PDL Width: Widening of the PDL space detected at #12, 11, 22, 23, 25, 26, 33 and 34.

Crown to root ratio for:

- #16, 15, 24, 36,35,34,44 and 45 was 1:1
- #14, 13, 12,11,21,22,23,26,33 and 43 was 2:1.
- #25, 46 and 47 was 1:2
- #32, 31, 41 and 42 reached 3:1.

Root proximity: Between #21 and #22

Other Findings / Pathology: No pathologic lesion was detected

ETIOLOGY:

PRIMARY:

- Bacterial dental plaque
 - *Aggregatibacter actinomycetemcomitans*. (Schacher et al., 2007)
 - *Porphyromonas gingivalis*. (Armitage, 2010)
- Genetic. (Vieira and Albandar, 2014)
- Host response defect (Lang et al., 1999)

SECONDARY:

- Secondary trauma from occlusion. (*Glickman & Smulow 1967*)
- Calculus (Albandar et al., 1998)

DIAGNOSIS:

SYSTEMIC:

Patient not aware of any medical problem.

DENTAL:

Incipient caries at #24 (D), #25 (M)#35 (D), and #45 (D).

Spacing between #12-13 and #21-22.

Periodontal:

- II-B2 Generalize Aggressive periodontitis (Armitage, 1999),

MUCOGINGIVAL DEFECT:

- Class I: in all teeth except in: #26 and lower anterior teeth class III (Miller, 1985)

FURCATION INVOLVEMENT:

- Class 1 in #46 ,class 2 in #16 (Glickman ,1953)

PROGNOSIS: (MCGUIRE AND NUNN, 1996)

Generally: Poor

Individual:

Fair: # 24, 25, 27, 37, 34 , 35 ,44 ,45 and 47

Questionable: #16, 13, 33 and 43

Hopeless: #14, 12, 11, 21, 22, 26, 33, 32, 31, 41, 42 and 43.

PRELIMINARY TREATMENT PLANE:

The main objectives of the treatment plan are: to arrest periodontal disease progression, reduce periodontal inflammation and probing pocket depth as well as maintaining functional healthy dentition through controlling plaque and local factors.

INITIAL TREATMENT PLAN:

PHASE I: NON-SURGICAL

- Case presentation and patient motivation
- Oral hygiene instruction:
 - ✓ Brushing:
 - ❖ Soft tooth brush
 - ❖ Modified stillmans technique
 - ❖ 2/day
 - ✓ Interdental aids:
 - ❖ Proxabrush
 - ❖ Waxed dental floss
 - ❖ 2/day
 - ✓ Mouth wash: (Guerrero et al , 2005)
 - ❖ Chlorohexidine 0.2%
 - ❖ 2/day
 - ❖ 2 weeks
- Antibiotic; Amoxicillin 500mg and metronidazole 500mg 3/day for 7 days. (Guerrero et al , 2005)
- Supra and subgingival scaling & root planning over 2 visits.(Guerrero et al , 2005)
- Polishing and topical fluoride application.
- Ortho wire removal.
- Re-evaluation after 4-6 weeks (Prakasam et al .2012).

PHASE II: SURGICAL TREATMENT

SEXTANT 1(#17-13)

Open flap debridement (Hayakawa et al, 2012)

#16:

Option 1: distal root amputation after root canal treatment. (Carnevale, et al , 1998)

Option 2: extraction & implant placement

“Partially edentulous subjects treated for GAgP can be rehabilitated successfully with osseointegrated implants. However, the bone and attachment loss at the implants were higher than in periodontally healthy subjects”. (Mengel et al, 2007)

“Implant placement in patients with a history of GAgP might be considered a viable option to restore oral function with survival outcomes similar to those found in both patients with CP and HPs. However, the risk ratio for failure in patients with AgP is significantly higher when compared with HPs (4.0) and those with chronic periodontitis” (Monje et al, 2014):

#14: Extraction & implant placement

SEXTENT 2 (#12-22)

Extraction and Implant placement

SEXTENT: 3 (#23-27)

Open flap debridement (Hayakawa et al, 2012)

#26: Extraction and implant placement with sinus lifting if needed.

SEXTENT 4 (#37-34)

Open flap debridement (Hayakawa et al, 2012)

#36: Mesial root amputation after root canal treatment. (Carnevale, et al , 1998)

SEXTENT 5 (#33-43)

1. Increase the width of attached gingiva with free gingival graft.
“Easier plaque control by the patient, prevent future recession and essential to the maintenance of periodontal health” (Kennedy et al, 1985)
2. Extraction.
3. Implant placement. (*Mengel et al, 2007*), (*Monje et al, 2014*)

SEXTENT 6 (#44-47)

Open flap debridement

#46:

- 1st option: odontoplasty with or without osteoplasty "Sánchez-Pérez 2009"
- 2nd option: Distal root amputation after root canal treatment.
(Carnevale, et al, 1998)

PHASE III: PROSTHETIC TREATMENT

- Implant supported prosthesis (#14, 12, 11, 21, 22, 26, 33, 32, 31, 41, 42, and 43).
- Crowning of #16, 36. And 46 if needed.
- In case the patient cannot afford the implant, Removable partial denture is indicated. FPD is contraindicated in this case due to weak and periodontally compromised abutments. "According to prosthodontist consultation".

PHASE IV:

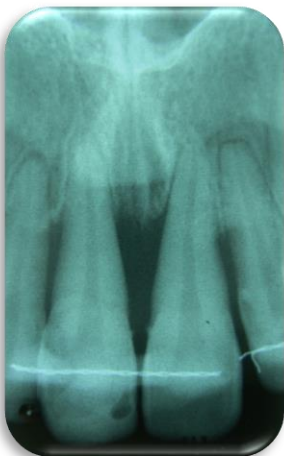
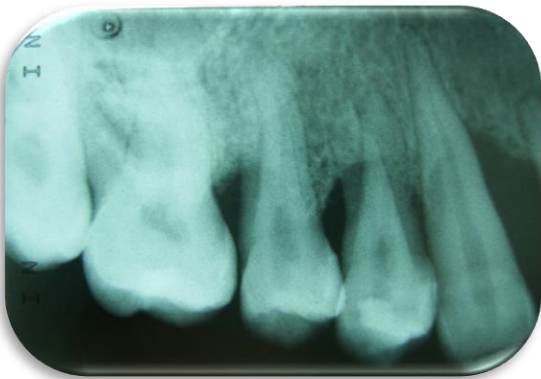
Monthly maintenance for the first 6 month, then bi-monthly maintenance for six more months. If the patient is stable during this first year, maintenance can be extended up to 3 months. (*Prakasam et al .2012*).

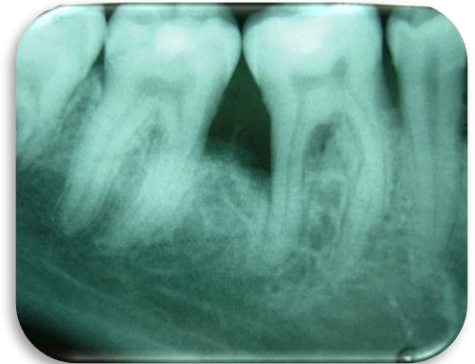
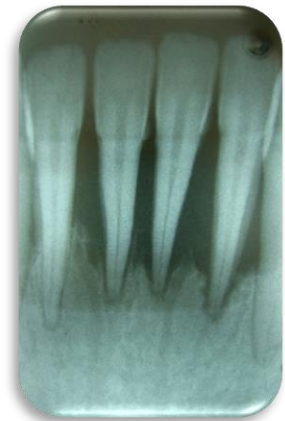
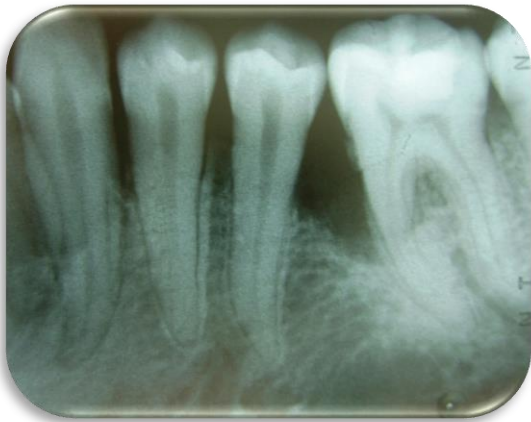
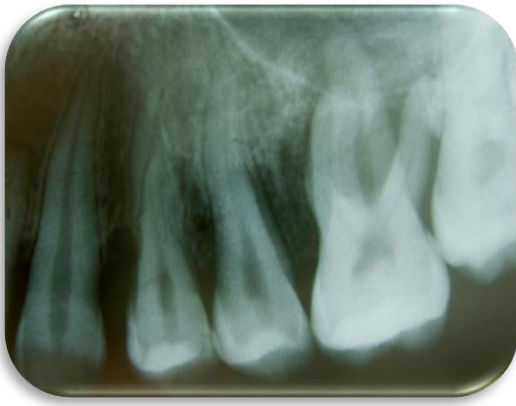
Intra-Oral Examination





Radiographic Examination





Periodontal Charting

Tooth no.	Probing depth						Furcation			M	R	CAL
	MB	B	DB	ML	L	DL	B	M	D			
#17	6	7	8	4	4	4				I	4	12
#16	4	2	7	3	3	5	II	II	II	I	3	10
#15	8	5	8	3	3	7					1	9
#14	8	3	8	4	4	6				I	2	10

Tooth no.	Probing depth						M	R	CAL
	MB	B	DB	ML	L	DL			
#13	7	4	4	4	5	5	II	2	9
#12	5	5	5	4	4	4	II	1	6
#11	3	3	4	3	3	4	II	2	6
#21	3	3	4	5	3	3	II	1	6
#22	3	3	3	3	3	3	II	2	5
#23	3	3	3	3	3	3	II	2	5

Tooth no.	Probing depth						Furcation			M	R	CAL
	MB	B	DB	ML	L	DL	B	M	D			
#24	4	4	4	3	3	3					1	5
#25	3	2	3	3	5	6						6
#26	3	2	6	9	6	5	II	II	II	I	5	14
#27	6	7	9	3	2	3					1	10

Tooth no.	Probing depth						Furcation		M	R	CAL
	MB	B	DB	ML	L	DL	B	L			
#34	4	2	3	5	2	4				2	7
#35	3	2	3	4	2	7				2	9
#36	8	2	3	6	2	3				1	9
#37	3	2	3	3	4	5				1	6

Tooth no.	Probing depth						M	R	CAL
	MB	B	DB	ML	L	DL			
#33	8	4	8	7	2	6	III	3	11
#32	9	3	3	6	4	6	III	3	12
#31	3	4	4	5	3	5	III	3	8
#41	5	2	7	5	4	6	III	3	10
#42	7	3	9	5	3	5	III	3	12
#43	5	2	4	4	2	4	III	3	8

Tooth no.	Probing depth						Furcation		M	R	CAL
	MB	B	DB	ML	L	DL	B	L			
#44	4	2	3	3	2	4				1	5
#45	3	2	3	3	2	3					3
#46	3	2	3	3	2	3	I	I		1	4
#47	5	3	3	4	3	3				1	6

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