

Periodontics Written Case Report – Example

I. MEDICAL HISTORY: The patient is a 47-year-old Caucasian male, 6' 1" tall, weighing 190 lbs. He is married, and works as a safety systems technician. He smokes one pack of cigarettes per day and consumes 7 to 8 beers per week. His baseline blood pressure was 114/74 with a regular pulse of 65 beats per minute and respirations at 15 per minute. A medical history questionnaire and subsequent interview was non-contributory and the results of routine laboratory testing of blood components (CBC, WBC, cholesterol) and urinalysis were within normal limits. The patient considers himself to be in very good health and is classified as ASA II.

II.A. EXTRAORAL HISTORY AND FINDINGS: Results of a visual examination and palpation of the head and neck region were within normal limits with no scars, a fair complexion and no lymphadenopathy. There was no history or clinical signs of TMJ dysfunction or myofascial pain.

II.B. INTRAORAL HISTORY AND FINDINGS: The patient presented with the chief complaint of a "bad taste" in his mouth. Both parents were edentulous by age 50. He reported a history of regular dental care consisting of annual examinations and prophylaxis with minimal restorative care. In 1996, he received doxycycline therapy followed one month later by flap surgery of the upper right sextant. His oral hygiene regimen included twice daily brushing with a soft brush in an undisciplined manner and occasional flossing, which has recently increased to once daily. He rinsed daily with a commercial mouthwash and has been educated in the use of a proxabrush. A slight clenching habit was described. All intraoral and oropharyngeal structures appeared within normal limits. Salivation was adequate in volume and serous in consistency. Moderate plaque, mild calculus and stain deposits were present.

II.C. CLINICAL FINDINGS: Disclosing solution was used to determine a modified O'Leary Plaque Index score of 44% plaque-free surfaces. An occlusal analysis revealed a bilateral Angle's Class 2 molar relationship with an overbite and overjet of 90% and 7 mm, respectively. Lateral excursions showed group function bilaterally, with balancing side contacts on the third molars. Centric relation and centric occlusion were coincidental and there was no palpable fremitus. Maxillary and mandibular arch forms were long ovoid and tapered, with asymmetric anterior diastemae.

There was moderate interproximal and mild occlusal attrition evident posteriorly. Teeth 21, 22, 23, 24, and 25 were slightly rotated and there was a small fracture of the mesiolingual incline of the lingual cusp on 24. Incipient caries was noted mesial to 36. A Miller's Class 1 mobility was recorded for teeth 15, 22, 25, 27 and 36. Vitality testing was positive for all teeth and furcation invasions were probed ranging from Glickman Grades I to III for the molars. The gingiva was generally coral pink and heavily stippled with mild marginal erythema and minimal keratinization labial to 31 as well as buccal and lingual to 38 and 48. The gingiva distal to 36 was more blue in colour, smooth surfaced, and a purulent exudate could be expressed from this sulcus and through multiple sinus tracts found labial and lingual to 22. Healed sinus tracts were apparent buccal to 16. Probing depths ranged from 1 mm to beyond the calibrated markings and virtually all sites bled thereafter. Slight recession was evident throughout, being more pronounced anteriorly.

II.D. RADIOGRAPHIC FINDINGS: The radiographs showed long, tapered roots with dilaceration of the mandibular third molar mesial roots. The roots of 21 and 22 were in close proximity. Crown to root ratios were generally 1:2 and up to 4:1 for 22. Calculus was noted on 25, 37, 35, and 47. Horizontal bone loss ranged from 5-30%, being more pronounced posteriorly for teeth 16, 15, 22, 23, 27, 28, 37, and 46. The entire distal root of 36 was surrounded by a broad radiolucency extending to the mesial of 37. The crestal lamina dura was hazy posteriorly while septal radiodensity was diminished anteriorly. Furcation invasions were suggested on 16, 26, 27, and 36 and slightly widened periodontal ligament spaces were seen on 22, 25, and 36. A 1996 panoramic radiograph suggests that most of the periodontal osseous destruction occurred in the last 3 years.

III. DIAGNOSIS: On the basis of the above data, a diagnosis of generalized, advanced, chronic adult periodontitis (ADA Type IV) was made. Generalized, moderate, chronic gingivitis was also present.

IV. ETIOLOGY: The primary etiological factor responsible for the periodontal condition was the presence of bacterial plaque and its metabolic by-products. The presence of sub-gingival calculus, genetic predisposition, and the patient's smoking habit are secondary contributing factors.

V. PROGNOSIS: The short-term prognosis for the overall dentition was good while the long-term prognosis was fair. Based on the patient's willingness to comply with home care instructions and the relatively long roots, the overall long-term prognosis was considered good with therapy. The prognosis for individual teeth is as follows: poor for 16, 22, 27, and 36; fair for 23 and 46, and good to excellent for the remaining dentition.

VI. TREATMENT PLAN AND THERAPY: The goal of therapy was to arrest the disease process and give the patient a dentition that was comfortable and functional, with minimal specialist care required for maintenance. The patient has no aesthetic concerns. The systemic phase of therapy was restricted to regular monitoring of vital signs and counselling regarding his smoking habit. Metronidazole and Amoxicillin at 500 mg each tid for 7 days was prescribed. Referral was made for endodontic therapy on 16, 27, and 36; however 26 and 46 were also treated, in error. The initial hygienic phase included oral hygiene instruction and monitoring, coincident with quadrant scaling and root planing with adjunctive local anaesthesia. Pending patient compliance with home care instructions, surgical intervention was planned to provide access to root surfaces, reduce pocket depths, gain attachment and facilitate oral hygiene. The surgery was sequenced as follows: (1) 5/7/89, 38-35 area; buccal and lingual full thickness flap reflection, debridement, distal root amputation and odontoplasty of 36, root planing, osseous recontouring, flap thinning and placement apically; (2) 14/7/89, 26-28 area; buccal and palatal full thickness flaps, debridement, distobuccal root amputation and odontoplasty of 27, root planing to include 22, osseous recontouring, flap placement apically. A large Grade III furcation involvement between the remaining roots prompted a hopeless prognosis for, and intra surgical extraction of, 27; (3) 1/8/89, 45-47 area, buccal and palatal full thickness flaps, debridement, mesiobuccal root amputation and odontoplasty of 16, root planing to include 12, osseous recontouring, flap placement apically. All surgical procedures were performed with local anaesthesia and adjunctive intravenous conscious sedation using midazolam and fentanyl. All sites were secured with silk sutures and periodontal pack. Analgesics and a chlorhexidine mouth rinse were prescribed post-operatively. The patient was referred for prosthetic therapy for teeth 16, 36, and replacement of 27.

VII. EVALUATION OF RESULTS: The patient has maintained nearly perfect plaque control and has successfully quit his smoking habit. He no longer uses a mouthwash. All Endodontic therapy has been successful thus far. The gingival tissues show the colour, contour and consistency typical of health. Probing depths have been reduced by a combination of gingival recession and an average gain in clinical attachment of 0.67 mm in the maxilla and 0.88 mm in the mandible for all sites. With the exception of three sites, all probing depths are less than or equal to 3 mm and there is no associated bleeding or suppuration. Previously movable teeth are now firm, with splinting of 16 to 15 and 37 to 36. Some furcation invasions have been reduced while others have been eliminated. All radiographic parameters are suggestive of a stable periodontia. Dentinal hypersensitivity has virtually disappeared. The long-term prognosis for 16 and 36 is considered good while that for all remaining teeth has been upgraded to excellent. Given the stable occlusal relationship and on the advice of the prosthodontist, the patient elected against fixed replacement of 27 and does not desire orthodontic alignment of the maxillary incisors for improved aesthetics.

VIII. MAINTENANCE PROGRAM: This is an ongoing re-evaluation and treatment process involving plaque control monitoring and reinforcement, soft and hard tissue examination and sub-gingival root surface debridement. The patient is recalled every 3 to 4 months for this service but extension of this period to 6 months is planned based on the stability of the periodontia and the patient's superb home care.