



CÁTEDRA EXTRAORDINARIA

DENTAID

EN INVESTIGACIÓN
PERIODONTAL

formación continua



CASOS CLÍNICOS E.T.E.P.

*La nueva clasificación de las enfermedades
periodontales y periimplantarias*



Periodontitis Estadío IV, Grado C
Ignacio Sanz y el Grupo de Investigación ETEP



Universidad Complutense de Madrid

Grupo de Investigación ETEP (Etiología y Terapéutica de las Enfermedades Periodontales)
ETEP Research Group (Etiology and Therapy of Periodontal Diseases)

- ✓ Mujer
- ✓ 48 años
- ✓ Cuidadora de colegio

Motivo de consulta

“No puedo comer ni masticar”. “He perdido la sonrisa. Me acompleja que cuando me hablan me miren a la cara y trato de no reírme”

Refiere

Inflamación de las encías, movilidad dentaria, retracción gingival, halitosis, sensibilidad al frío, impactación de alimentos

Historia médica

- Sin enfermedades sistémicas relevantes
- Enfermedades pasadas: operada de dos hernias discales
- Sin medicaciones relevantes
- Padre diabético
- Fumadora 10-12 cigarrillos/día desde hace 20 años
- No presenta hábitos parafuncionales

Historia dental

- Profilaxis periódicas. Última hace 2 años
- Obturaciones, exodoncias y endodoncias
- Prótesis parcial fija superior hace 15 años
- Exodoncia de Prótesis parcial fija inferior hace 6 años

Técnicas de higiene bucodental

- Inadecuada, 3 veces al día, con técnica horizontal
- Usa los dispositivos de higiene interdental de manera ocasional. No usa colutorios

- **Cabeza y cuello**

No presentan asimetrías, ni anomalías

- **ATM**

Dolor a la palpación

- **Labios**

Labios finos

- **Mucosas y lengua**

No se aprecian alteraciones de color o consistencia en membranas mucosas. La lengua es normal

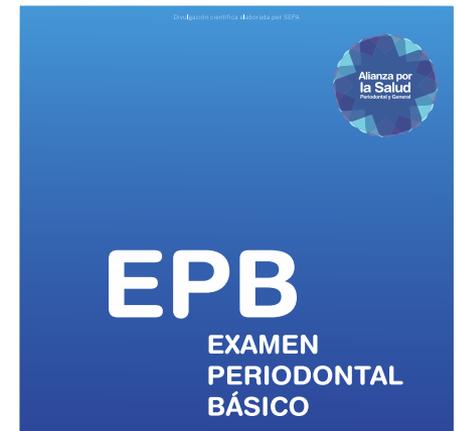


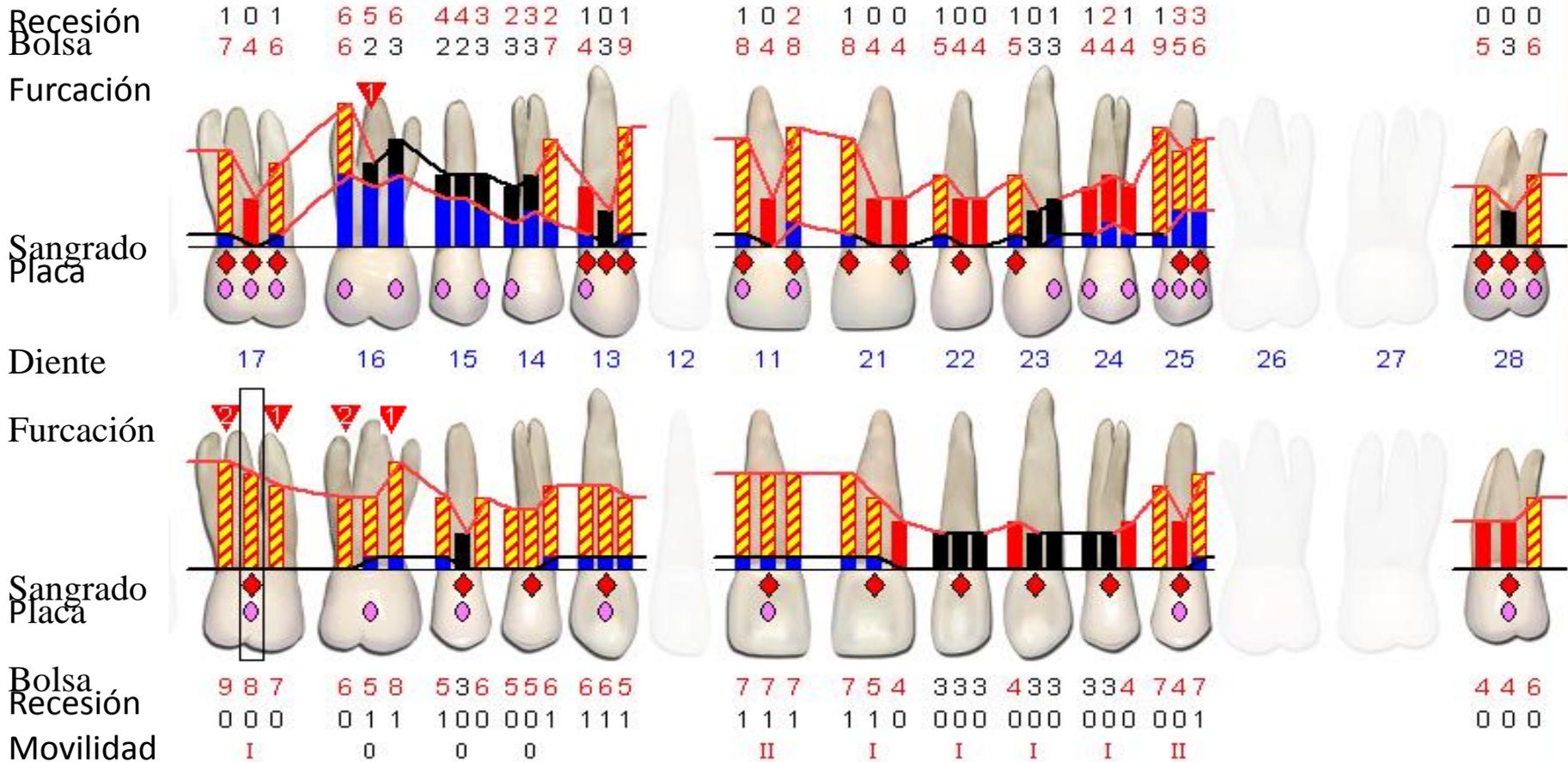
- Fotografías de las arcadas dentarias



- ✓ La paciente ha perdido los sectores posteriores en tres de los cuatro cuadrantes
- ✓ Presenta una acumulación generalizada de placa pero poco cálculo
- ✓ Presenta una extrusión avanzada del primer cuadrante y una sobremordida completa (síndrome de colapso posterior de mordida)
- ✓ Presenta prótesis parciales fijas y restauraciones desajustadas

4*	4	4
4	4	4
EXAMEN PERIODONTAL BÁSICO		





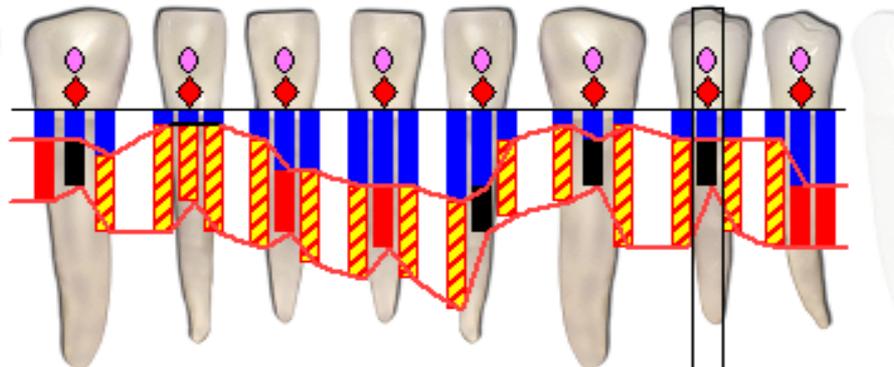
Índice de Placa: 63%

Sangrado al Sondaje: 56%

Movilidad
Recesión
Bolsa

		I	I	II	I		I	I
	2 2 3	1 1 1	2 4 4	5 5 5	6 5 2	1 2 1	2 2 2	2 5 5
	4 3 5	7 5 7	7 4 6	6 4 6	7 3 5	5 3 8	7 3 6	7 4 4

Placa
Sangrado

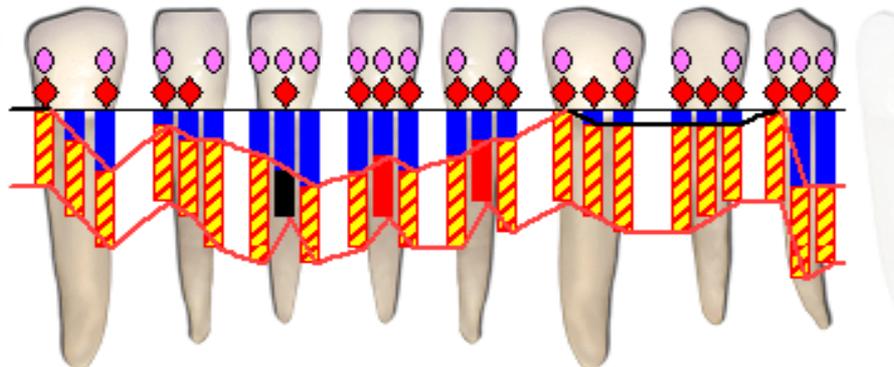


Furcación

Diente

43 42 41 31 32 33 34 35 :

Placa
Sangrado



Furcación

Bolsa
Recesión

⊗	5 5 5	5 5 7	7 3 5	5 4 5	6 4 6	6 6 7	7 6 5	6 6 5
	0 2 4	1 2 2	3 4 5	4 3 4	3 2 2	0 1 1	1 1 1	0 5 5

Índice de Placa: 63%

Sangrado al Sondaje: 56%

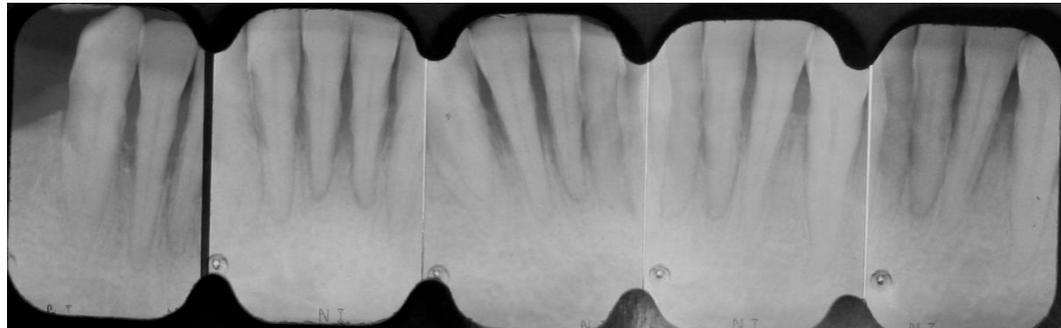
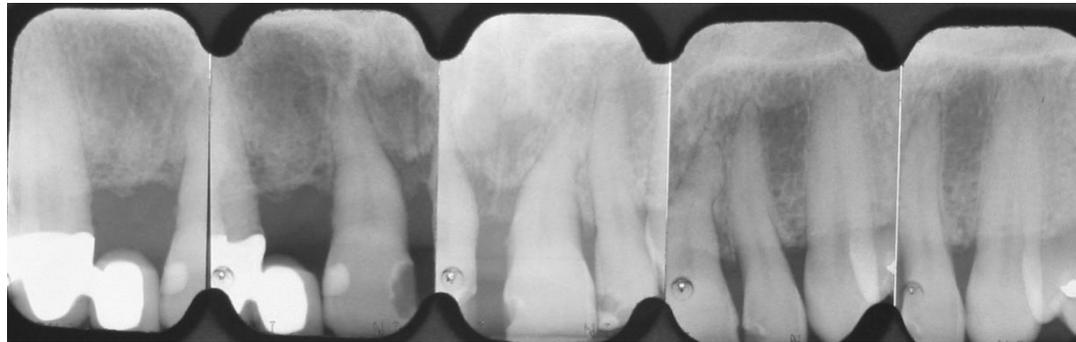
- Fotografías por sextantes



- Fotografías por sextantes



- ✓ La exploración periodontal revela bolsas profundas (> 6 mm) en la mayor parte de los dientes remanentes
- ✓ Los molares del primer cuadrante presentan furcas grado 1 y 2
- ✓ El índice de placa es del 63% y el de sangrado del 56%
- ✓ Los dientes 21, 25 y 31 presentan movilidad grado 2



- ✓ El examen radiográfico revela pérdida ósea generalizada avanzada
- ✓ Defectos intra-óseos en 11, 25, 44 y 45
- ✓ No presenta imágenes radiolúcidas a nivel apical
- ✓ Resto radicular en 26

<i>P. gingivalis</i>	44,3 %
<i>P. intermedia</i>	10,37 %
<i>P. micros</i>	0.75%
<i>F. nucleatum</i>	0.75%

Flora total: $2,6 \times 10^7$ unidades formadoras de colonias/ml



- I. Gingival Diseases
 - A. Dental plaque-induced gingival diseases*
 1. Gingivitis associated with dental plaque only
 - a. without other local contributing factors
 - b. with local contributing factors (See VIII A)
 2. Gingival diseases modified by systemic factors
 - a. associated with the endocrine system
 - 1) puberty-associated gingivitis
 - 2) menstrual cycle-associated gingivitis
 - 3) pregnancy-associated
 - a) gingivitis
 - b) pyogenic granuloma
 - 4) diabetes mellitus-associated gingivitis
 - b. associated with blood dyscrasias
 - 1) leukemia-associated gingivitis
 - 2) other
 3. Gingival diseases modified by medications
 - a. drug-influenced gingival diseases
 - 1) drug-influenced gingival enlargements
 - 2) drug-influenced gingivitis
 - a) oral contraceptive-associated gingivitis
 - b) other
 4. Gingival diseases modified by malnutrition
 - a. ascorbic acid-deficiency gingivitis
 - b. other
 - B. Non-plaque-induced gingival lesions
 1. Gingival diseases of specific bacterial origin
 - a. *Neisseria gonorrhoea*-associated lesions
 - b. *Treponema pallidum*-associated lesions
 - c. streptococcal species-associated lesions
 - d. other
 2. Gingival diseases of viral origin
 - a. herpesvirus infections
 - 1) primary herpetic gingivostomatitis
 - 2) recurrent oral herpes
 - 3) varicella-zoster infections
 - b. other
 3. Gingival diseases of fungal origin
 - a. *Candida*-species infections
 - 1) generalized gingival candidosis
 - b. linear gingival erythema
 - c. histoplasmosis
 - d. other
 4. Gingival lesions of genetic origin
 - a. hereditary gingival fibromatosis
 - b. other
 5. Gingival manifestations of systemic conditions
 - a. mucocutaneous disorders
 - 1) lichen planus
 - 2) pemphigoid
 - 3) pemphigus vulgaris
 - 4) erythema multiforme
 - 5) lupus erythematosus
 - 6) drug-induced
 - 7) other
 - b. allergic reactions
 - 1) dental restorative materials
 - a) mercury
 - b) nickel
 - c) acrylic
 - d) other
 - 2) reactions attributable to
 - a) toothpastes/dentifrices
 - b) mouthrinses/mouthwashes
 - c) chewing gum additives
 - d) foods and additives
 - 3) other
 6. Traumatic lesions (factitious, iatrogenic, accidental)
 - a. chemical injury
 - b. physical injury
 - c. thermal injury
 7. Foreign body reactions
 8. Not otherwise specified (NOS)

Figure 1.

Classification of periodontal diseases and conditions.

* Can occur on a periodontium with no attachment loss or on a periodontium with attachment loss that is not progressing.

<ul style="list-style-type: none"> II. Chronic Periodontitis[†] <ul style="list-style-type: none"> A. Localized B. Generalized III. Aggressive Periodontitis[†] <ul style="list-style-type: none"> A. Localized B. Generalized IV. Periodontitis as a Manifestation of Systemic Diseases <ul style="list-style-type: none"> A. Associated with hematological disorders <ul style="list-style-type: none"> 1. Acquired neutropenia 2. Leukemias 3. Other B. Associated with genetic disorders <ul style="list-style-type: none"> 1. Familial and cyclic neutropenia 2. Down syndrome 3. Leukocyte adhesion deficiency syndromes 4. Papillon-Lefèvre syndrome 5. Chediak-Higashi syndrome 6. Histiocytosis syndromes 7. Glycogen storage disease 8. Infantile genetic agranulocytosis 9. Cohen syndrome 10. Ehlers-Danlos syndrome (Types IV and VIII) 11. Hypophosphatasia 12. Other C. Not otherwise specified (NOS) V. Necrotizing Periodontal Diseases <ul style="list-style-type: none"> A. Necrotizing ulcerative gingivitis (NUG) B. Necrotizing ulcerative periodontitis (NUP) VI. Abscesses of the Periodontium <ul style="list-style-type: none"> A. Gingival abscess B. Periodontal abscess C. Pericoronal abscess 	<ul style="list-style-type: none"> VII. Periodontitis Associated With Endodontic Lesions <ul style="list-style-type: none"> A. Combined periodontic-endodontic lesions VIII. Developmental or Acquired Deformities and Conditions <ul style="list-style-type: none"> A. Localized tooth-related factors that modify or predispose to plaque-induced gingival diseases/periodontitis <ul style="list-style-type: none"> 1. Tooth anatomic factors 2. Dental restorations/appliances 3. Root fractures 4. Cervical root resorption and cemental tears B. Mucogingival deformities and conditions around teeth <ul style="list-style-type: none"> 1. Gingival/soft tissue recession <ul style="list-style-type: none"> a. facial or lingual surfaces b. interproximal (papillary) 2. Lack of keratinized gingiva 3. Decreased vestibular depth 4. Aberrant frenum/muscle position 5. Gingival excess <ul style="list-style-type: none"> a. pseudopocket b. inconsistent gingival margin c. excessive gingival display d. gingival enlargement (See I.A.3. and I.B.4.) 6. Abnormal color C. Mucogingival deformities and conditions on edentulous ridges <ul style="list-style-type: none"> 1. Vertical and/or horizontal ridge deficiency 2. Lack of gingiva/keratinized tissue 3. Gingival/soft tissue enlargement 4. Aberrant frenum/muscle position 5. Decreased vestibular depth 6. Abnormal color D. Occlusal trauma <ul style="list-style-type: none"> 1. Primary occlusal trauma 2. Secondary occlusal trauma
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Figure 1. (Continued)

[†] Can be further classified on the basis of extent and severity. As a general guide, extent can be characterized as Localized = ≤30% of sites involved and Generalized = >30% of sites involved. Severity can be characterized on the basis of the amount of clinical attachment loss (CAL) as follows: Slight = 1 or 2 mm CAL, Moderate = 3 or 4 mm CAL, and Severe = ≥5 mm CAL.

- ✓ La paciente presenta una periodontitis crónica generalizada (>30 % de localizaciones)
- ✓ Dentro de los tres grados de severidad, esta periodontitis se corresponde con una avanzada (pérdida de inserción ≥ 5 mm)

- II. Chronic Periodontitis[†]
 - A. Localized
 - B. Generalized

Armitage GC. (1999) Development of a classification system for periodontal diseases and conditions. Ann Periodontol, 4(1), 1-6.

Meng HX (1999) Periodontal abscess. Ann Periodontol, 4(1), 79-83.

CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS 2017

Periodontal Diseases and Conditions

Periodontal Health, Gingival Diseases and Conditions Chapple, Mealey, et al. 2018 Consensus Rept link Trombelli et al. 2018 Case Definitions link			Periodontitis Papapanou, Sanz et al. 2018 Consensus Rept link Jepsen, Caton et al. 2018 Consensus Rept link Tonetti, Greenwell, Kornman. 2018 Case Definitions link			Other Conditions Affecting the Periodontium Jepsen, Caton et al. 2018 Consensus Rept link Papapanou, Sanz et al. 2018 Consensus Rept link				
Periodontal Health and Gingival Health	Gingivitis: Dental Biofilm-induced	Gingival Diseases: Non-Dental Biofilm-Induced	Necrotizing Periodontal Diseases	Periodontitis	Periodontitis as a Manifestation of Systemic Disease	Systemic diseases or conditions affecting the periodontal supporting tissues	Periodontal Abscesses and Endodontic-Periodontal Lesions	Mucogingival Deformities and Conditions	Traumatic Occlusal Forces	Tooth and Prosthesis Related Factors

Peri-Implant Diseases and Conditions

[Berglundh, Armitage et al. 2018 Consensus Rept link](#)

Peri-Implant Health	Peri-Implant Mucositis	Peri-Implantitis	Peri-Implant Soft and Hard Tissue Deficiencies
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Caton J, Armitage G, Berglundh T, Chapple ILC, Jepsen S, Kornman K, Mealey B, Papapanou PN, Sanz M, Tonetti M. (2018) A new classification scheme for periodontal and peri-implant diseases and conditions - Introduction and key changes from the 1999 classification. J Clin Periodontol, 45 Suppl. 20, S1-S8.

TABLE 1A Classification of periodontitis based on stages defined by severity (according to the level of interdental clinical attachment loss, radiographic bone loss and tooth loss), complexity and extent and distribution

Periodontitis stage		Stage I	Stage II	Stage III	Stage IV
Severity	Interdental CAL at site of greatest loss	1 to 2 mm	3 to 4 mm	≥5 mm	≥5 mm
	Radiographic bone loss	Coronal third (<15%)	Coronal third (15% to 33%)	Extending to mid-third of root and beyond	Extending to mid-third of root and beyond
	Tooth loss	No tooth loss due to periodontitis		Tooth loss due to periodontitis of ≤4 teeth	Tooth loss due to periodontitis of ≥5 teeth
Complexity	Local	Maximum probing depth ≤4 mm Mostly horizontal bone loss	Maximum probing depth ≤5 mm Mostly horizontal bone loss	In addition to stage II complexity: Probing depth ≥6 mm Vertical bone loss ≥3 mm Furcation involvement Class II or III Moderate ridge defect	In addition to stage III complexity: Need for complex rehabilitation due to: Masticatory dysfunction Secondary occlusal trauma (tooth mobility degree ≥2) Severe ridge defect Bite collapse, drifting, flaring Less than 20 remaining teeth (10 opposing pairs)
		For each stage, describe extent as localized (<30% of teeth involved), generalized, or molar/incisor pattern			
Extent and distribution	Add to stage as descriptor	For each stage, describe extent as localized (<30% of teeth involved), generalized, or molar/incisor pattern			

Papapanou PN, Sanz M, Buduneli N, Dietrich T, Feres M, Fine DH, Flemmig TF, Garcia R, Giannobile WV, Graziani F, Greenwell H, Herrera D, Kao RT, Kerschull M, Kinane DF, Kirkwood KL, Kocher T, Kornman KS, Kumar PS, Loos BG, Machtei E, Meng H, Mombelli A, Needleman I, Offenbacher S, Seymour GJ, Teles R, Tonetti MS. (2018). Periodontitis: Consensus report of workgroup 2 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Clin Periodontol, 45 Suppl 20, S162-S170.

TABLE 1B Classification of periodontitis based on grades that reflect biologic features of the disease including evidence of, or risk for, rapid progression, anticipated treatment response, and effects on systemic health

Periodontitis grade			Grade A: Slow rate of progression	Grade B: Moderate rate of progression	Grade C: Rapid rate of progression
Primary criteria	Direct evidence of progression	Longitudinal data (radiographic bone loss or CAL)	Evidence of no loss over 5 years	<2 mm over 5 years	≥2 mm over 5 years
	Indirect evidence of progression	% bone loss/age	<0.25	0.25 to 1.0	>1.0
		Case phenotype	Heavy biofilm deposits with low levels of destruction	Destruction commensurate with biofilm deposits	Destruction exceeds expectation given biofilm deposits; specific clinical patterns suggestive of periods of rapid progression and/or early onset disease (e.g., molar/incisor pattern; lack of expected response to standard bacterial control therapies)
Grade modifiers	Risk factors	Smoking	Non-smoker	Smoker <10 cigarettes/day	Smoker ≥10 cigarettes/day
		Diabetes	Normoglycemic/ no diagnosis of diabetes	HbA1c <7.0% in patients with diabetes	HbA1c ≥7.0% in patients with diabetes

Papapanou PN, Sanz M, Buduneli N, Dietrich T, Feres M, Fine DH, Flemmig TF, Garcia R, Giannobile WV, Graziani F, Greenwell H, Herrera D, Kao RT, Kerschull M, Kinane DF, Kirkwood KL, Kocher T, Kornman KS, Kumar PS, Loos BG, Machtei E, Meng H, Mombelli A, Needleman I, Offenbacher S, Seymour GJ, Teles R, Tonetti MS. (2018). Periodontitis: Consensus report of workgroup 2 of the 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions. J Clin Periodontol, 45 Suppl 20, S162-S170.

- ✓ En la nueva clasificación las periodontitis se categorizan según su estadio (severidad, complejidad, extensión) y grado (riesgo de progresión)
- ✓ El estadio de esta periodontitis es Estadio IV, pues la paciente ha perdido más de 8 dientes por causas periodontales, presenta un importante número de dientes con pérdida de inserción ≥ 8 mm y sufre de un síndrome de colapso posterior de mordida

- ✓ El grado de esta periodontitis es Grado C, puesto que a pesar de que no hay evidencia directa de una pérdida de inserción rápida, la paciente ha perdido mucha hueso con respecto a la edad que tiene y es fumadora de > 10 cigarrillos al día
- ✓ En este tipo de periodontitis se requiere de un abordaje interdisciplinar



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