



CÁTEDRA EXTRAORDINARIA

**DENTAID**

EN INVESTIGACIÓN  
PERIODONTAL

formación continua



## CASOS CLÍNICOS E.T.E.P.

*La nueva clasificación de las enfermedades  
periodontales y periimplantarias*



*Periodontitis necrosante*

Bettina Alonso 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)

- ✓ Hombre
- ✓ 45 años
- ✓ Bedel

## **Motivo de consulta**

“Me duelen las encías, no me puedo ni cepillar”

## **Refiere**

Dolor agudo , sangrado generalizado, supuración, halitosis, mal sabor de boca

## **Historia médica**

- Sin enfermedades sistémicas relevantes
- Sin medicaciones relevantes
- Padre y madre periodontitis
- Fumador 20 cig/día desde los 15 años

## **Historia dental**

- Ningún tratamiento previo a excepción de una limpieza hace 5 años

## **Técnicas de higiene bucal**

- Cepillado infrecuente (cepillo manual, técnica horizontal)
- No realiza higiene interdental
- No usa colutorios

- **Cabeza y cuello**

No presentan asimetrías, ni anormalidades

- **ATM**

Inspección de ATM normal

- **Labios**

Inspección de los labios normal



- **Mucosas**

No se aprecian alteraciones de color o consistencia en membranas mucosas, salvo las encías

- **Lengua**

Exploración de la lengua es normal





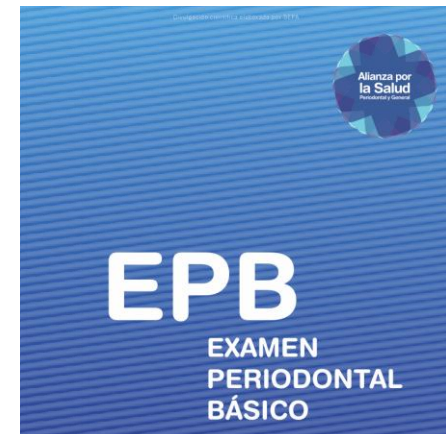




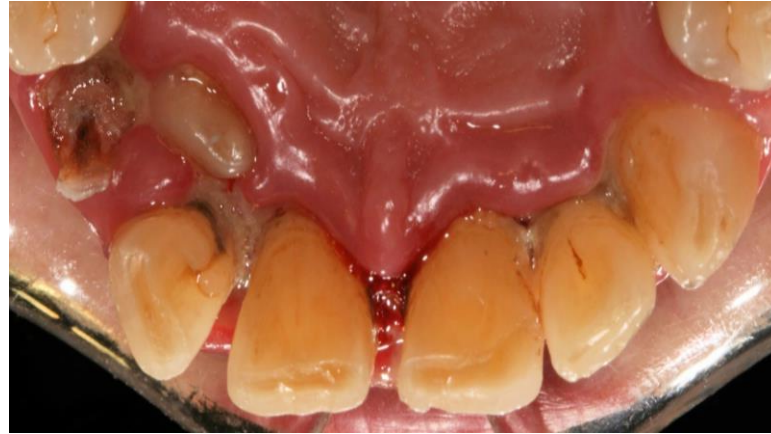
- ✓ El paciente tiene todos los dientes, menos los cordales
- ✓ Presenta acumulación importante de placa dental y cálculo
- ✓ Se observa necrosis de las encías (margen gingival y papilas)
- ✓ No presenta caries, ni restauraciones dentales
- ✓ Presenta diastemas y el 23 semiincluido y malposicionado

- ✓ Debido a la existencia de una condición aguda, no se realiza sondaje ni, por tanto, Examen Periodontal Básico

|                           |  |  |
|---------------------------|--|--|
|                           |  |  |
|                           |  |  |
| EXAMEN PERIODONTAL BÁSICO |  |  |







- ✓ Presenta inflamación generalizada y papilas decapitadas o en “sacabocados”, sobre todo, en los sectores anteriores
- ✓ Sangrado profuso y dolor

# Exploración intrabucal (después de tratar la fase aguda)



2 días



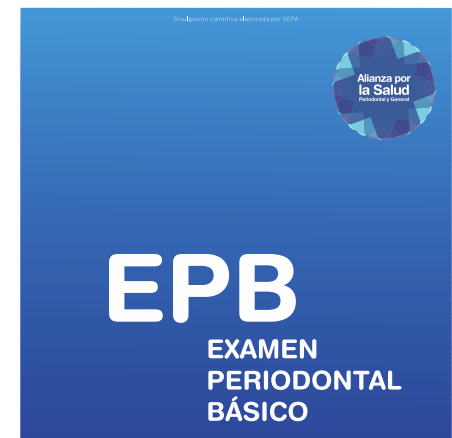
3 días

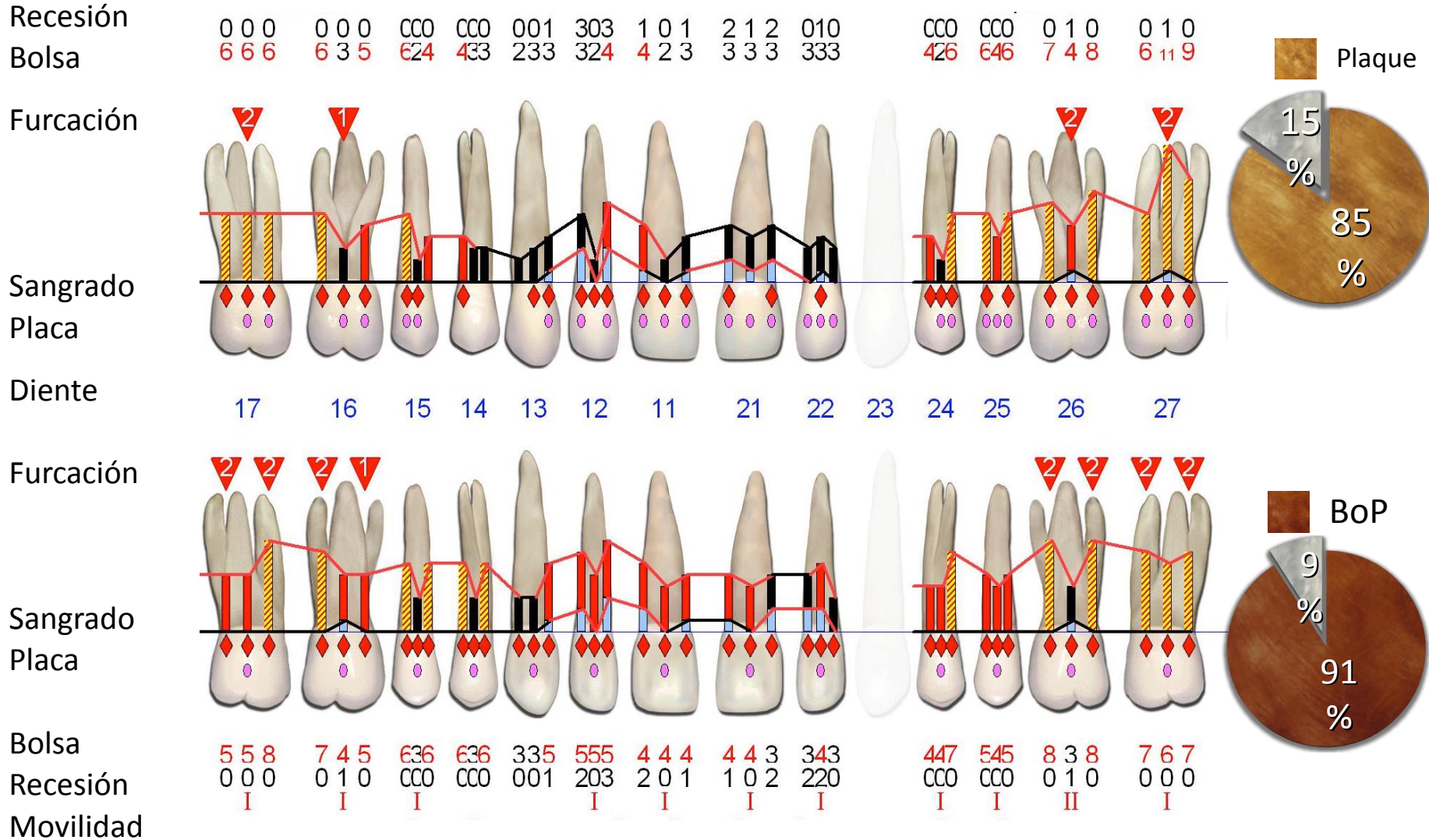


4 días



|                           |   |    |
|---------------------------|---|----|
| 4*                        | 3 | 4* |
| 4*                        | 4 | 4* |
| EXAMEN PERIODONTAL BÁSICO |   |    |



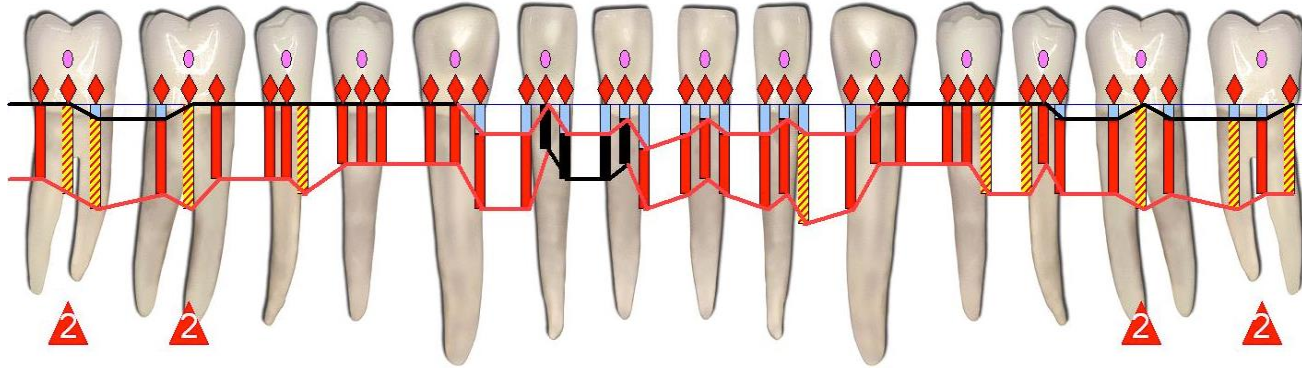


Movilidad

Recesión  
Bolsa

|       |       |         |         |       |         |         |         |         |       |         |         |       |       |
|-------|-------|---------|---------|-------|---------|---------|---------|---------|-------|---------|---------|-------|-------|
| 0 0 1 | 1 0 0 | I 0 0 0 | I 0 0 0 | 0 0 2 | I 2 0 2 | I 2 1 3 | I 2 1 2 | I 2 1 2 | 2 0 0 | I 0 0 0 | I 0 0 1 | 1 0 1 | 1 1 0 |
| 5 6 6 | 5 7 5 | 5 5 6   | 4 4 4   | 4 4 5 | 5 3 3   | 3 3 4   | 4 4 4   | 5 5 6   | 5 4 4 | 4 4 6   | 6 4 5   | 5 7 5 | 6 5 6 |

Placa  
Sangrado

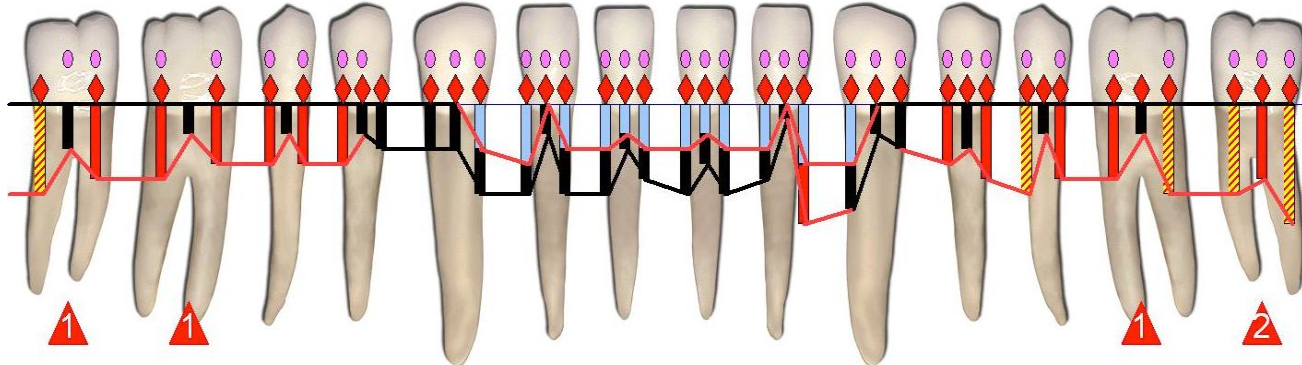


Furcación

Diente

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 47 | 46 | 45 | 44 | 43 | 42 | 41 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

Placa  
Sangrado

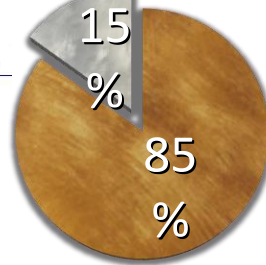


Furcación

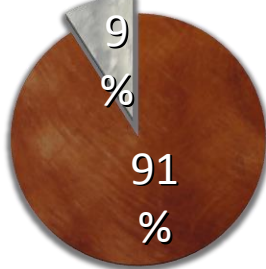
Bolsa  
Recesión

|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 6 3 5 | 5 2 4 | 4 2 4 | 4 2 3 | 3 3 3 | 2 2 3 | 3 1 2 | 3 2 3 | 2 1 4 | 3 2 3 | 4 3 5 | 6 2 5 | 5 2 6 | 6 5 8 |
| 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 3 | 4 0 3 | 3 2 3 | 3 2 3 | 3 0 4 | 4 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |

Plaque



BoP









- *Porphyromonas gingivalis*: 63,79%
- *Prevotella intermedia*: 3,02 %
- *Fusobacterium nucleatum*: 7,84 %
- *Tannerella forsythia*: 3,43 %

TOTAL:  $2,0 \times 10^7$  UFC/ml







- ✓ El examen radiográfico revela pérdida ósea generalizada moderada, localizada avanzada, un patrón horizontal generalizado
- ✓ Relación corono-radicular desfavorable 11, 21, 22, 24, 25, 42, 41, 31, 32 33
- ✓ Proximidad radicular 21 22
- ✓ Imágenes compatibles con defecto infraóseo 16 15 26
- ✓ Imágenes compatibles con afectación de furca 16, 26, 27, 36

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

### Figure 1. (Continued)

<sup>†</sup> 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 lesión corresponde al apartado V, **Enfermedades periodontales necrosantes**
- ✓ Dentro de los dos tipos, corresponde a una **periodontitis necrosante**

- V. Necrotizing Periodontal Diseases
  - A. Necrotizing ulcerative gingivitis (NUG)
  - B. Necrotizing ulcerative periodontitis (NUP)



- ✓ La **periodontitis necrosante** se caracteriza por necrosis del tejido gingival con pérdida de inserción periodontal y de hueso alveolar
- ✓ **Clínicamente** se caracteriza por papilas decapitadas, necrosis del margen gingival, pérdida de inserción periodontal, formando los cráteres periodontales y por sangrado profuso. A veces, se observan pseudomembranas. Rara vez, se observa denudación alveolar y secuestros óseos
- ✓ Los **síntomas** son el dolor que varía en función de la extensión, halitosis y raras veces, malestar general, fiebre baja, adenopatías

## CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS 2017

### Periodontal Diseases and Conditions

| Periodontal Health, Gingival Diseases and Conditions             |                                    |   | Periodontitis   |               |  | Other Conditions Affecting the Periodontium                                  |  |   |                           |                                      |
|--|------------------------------------|---|---|---------------|--|--|--|---|---------------------------|--------------------------------------|
| Chapple, Mealey, et al. 2018 Consensus Rept <a href="#">link</a> |                                    |   | Papapanou, Sanz et al. 2018 Consensus Rept <a href="#">link</a>         |               |  | Jepsen, Caton et al. 2018 Consensus Rept <a href="#">link</a>                |  |   |                           |                                      |
| Trombelli et al. 2018 Case Definitions <a href="#">link</a>      |                                    |   | Tonetti, Greenwell, Kornman. 2018 Case Definitions <a href="#">link</a> |               |  | Papapanou, Sanz et al. 2018 Consensus Rept <a href="#">link</a>              |  |   |                           |                                      |
| 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 |
|---------------------|------------------------|------------------|--|

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.

- ✓ La lesión corresponde al apartado de Periodontitis, y dentro de ello a las **Enfermedades periodontales necrosantes**
- ✓ Dentro de los dos tipos de enfermedades periodontales necrosantes, corresponde a la categoría **pacientes inmunocomprometidos de forma temporal y/o moderadamente**, que tienen como enfermedad de base periodontitis

**TABLE 4** Proposal of classification for necrotizing periodontal diseases (NPD)

| Category   | Patients                  | Predisposing conditions                                   | Clinical condition                         |
|--|---------------------------|---|--|
| Necrotizing periodontal diseases in chronically, severely compromised patients         | In adults                 | HIV+/AIDS with CD4 counts < 200 and detectable viral load | NG, NP, NS, Noma.<br>Possible progression  |
|  |                           | Other severe systemic conditions (immunosuppression)      |  |
|  | In children               | Severe malnourishments <sup>a</sup>                       |  |
|  |                           | Extreme living conditions <sup>b</sup>                    |  |
|  |                           | Severe (viral) infections <sup>c</sup>                    |  |
| Necrotizing periodontal diseases in temporarily and/or moderately compromised patients | In gingivitis patients    | Uncontrolled factors: stress, nutrition, smoking, habits  | Generalized NG. Possible progression to NP |
|  |                           | Previous NPD: residual craters                            |  |
|  | In periodontitis patients | Local factors: root proximity, tooth malposition          | Localized NG. Possible progression to NP   |
|  |                           | Common predisposing factors for NPD (see paper)           | NG. Infrequent progression                 |
|  |                           |   | NP. Infrequent progression                 |

NG, necrotizing gingivitis; NP, necrotizing periodontitis; NS, necrotizing stomatitis

<sup>a</sup>Mean plasma and serum concentrations of retinol, total ascorbic acid, zinc, and albumin markedly reduced, or very marked depletion of plasma retinol, zinc, and ascorbate; and saliva levels of albumin and cortisol, as well as plasma cortisol concentrations, significantly increased

<sup>b</sup>Living in substandard accommodations, exposure to debilitating childhood diseases, living near livestock, poor oral hygiene, limited access to potable water and poor sanitary disposal of human and animal fecal waste

<sup>c</sup>Measles, herpes viruses (cytomegalovirus, Epstein-Barr virus-1, herpes simplex virus) chicken pox, malaria, febrile illness

- ✓ La **periodontitis necrosante** es un proceso inflamatorio agudo de los tejidos gingivales que se caracteriza por la necrosis de la encía
- ✓ Los *signos/síntomas primarios* son los mismos de la gingivitis necrosante (presencia de necrosis/úlceras de las papilas interdientales, sangrado gingival y dolor) y además, pérdida de inserción periodontal y ósea rápida
- ✓ *Otros signos/síntomas asociados* con esta afección pueden incluir halitosis, pseudomembranas, linfadenopatías regionales, fiebre y sialorrea (sobre todo en niños)

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, Kebschull 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.

Herrera D, Retamal-Valdes B, Alonso B, Feres M. (2018) Acute periodontal lesions (periodontal abscesses and necrotizing periodontal diseases) and endo-periodontal lesions. *J Clin Periodontol*, 45 Suppl 20, S78-S94.





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