

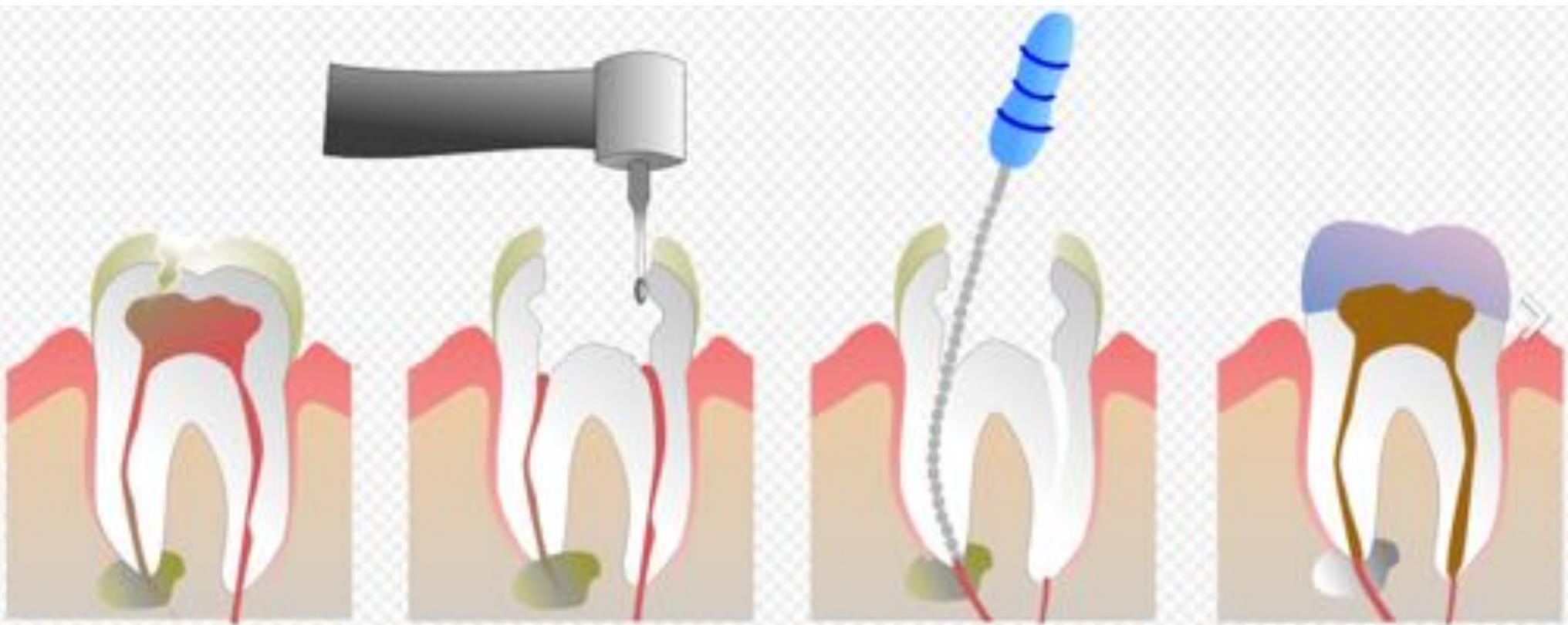
MICROBIOLOGIA DE LA ENFERMEDAD ENDODONTICA y PERIODONTAL

- ▶ DEFINICION E.E.
- ▶ BACTERIAS ASOCIADAS A E.E.
- ▶ MECANISMO DE ACCION
- ▶ DIAGNOSTICO



DR.JORGE TORRES MALDONADO
OCTUBRE 2019

- ▶ ENDODONTICO: Relativo a Endodoncia:
- ▶ ENDODONCIA: Endo (interior), Odontos (diente), American Association of Endodontists. rama de la odontología que trata de la morfología, fisiología, y patología de la pulpa dental y los tejidos perirradiculares.
- ▶ reconocida desde 1963 por la Asociación Dental Americana





Preguntas más frecuentes

« [Quiénes somos](#)

[Preguntas más frecuentes](#)

[Constitución](#)

[Multilingüismo](#)

¿Cómo define la OMS la salud?

«La salud es un estado de completo bienestar físico, mental y social, y no solamente la ausencia de afecciones o enfermedades». La cita procede del Prelíbulo de la Constitución de la Organización Mundial de la Salud, que fue adoptada por la Conferencia Sanitaria Internacional, celebrada en Nueva York del 19 de junio al 22 de julio de 1946, firmada el 22 de julio de 1946 por los representantes de 61 Estados (Official Records of the World Health Organization, Nº 2, p. 100), y entró en vigor el 7 de abril de 1948. La definición no ha sido modificada desde 1948.

ENFERMEDAD:

Desviación del estado de
salud normal.



E.E.:

Desviación del estado de salud normal del sistema de conductos dentarios y los tejidos perirradiculares



A.I. DESCRITOS ASOCIADOS A E.E.

- ▶ ATNC
- ▶ VIRUS
- ▶ BACTERIAS
- ▶ HONGOS
- ▶ PARASITOS



Effect of Prion Decontamination Protocols on Nickel-Titanium Rotary Surfaces

David Sonntag, DMD,* and Ove A. Peters, PD, DMD, MS, FICD[†]

Abstract

Decontamination of instruments is a prerequisite for their potential reuse but may affect surface integrity. Hence, the effect of prion removal protocols on 7 brands of nickel-titanium files was investigated. Baseline debris scores were determined under magnification after staining with van Gieson's solution. After shaping root canals *in vitro*, rotaries were mechanically and ultrasonically cleaned followed by immersion for 24 hours in 2 M sodium hydroxide (NaOH), 6 M CH₃N₂, or 3% sodium hypochlorite (NaOCl); control files were stored dry. After sterilization, files were again stained and evaluated. Two of seven file brands demonstrated significantly higher baseline debris scores compared to final scores. Uniformly, debris could not be completely removed; there were no significant differences among groups. After immersion in NaOCl, 27.8% of instruments showed corrosion; however, no deterioration after immersion in the other solutions was found in the other groups. Regarding corrosion, no significant difference was found between brands. Based on these findings, single use of nickel-titanium rotaries appears beneficial. (*J Endod* 2007;33:442–446)

Key Words

Corrosion, decontamination, nickel titanium, prion, sodium hypochlorite

Prions are proteins that have been linked to fatal neurodegenerative diseases commonly called transmissible spongiform encephalopathies. The term *prion* was coined by Prusiner (1) in 1982, when he described a protein with a nonpathogenic isoform PrP^{Sc} and the infectious agent PrP^{Sc} as a cause of scrapie, a veterinary disease. Similar agents may infect humans with Creutzfeld Jacob Disease (CJD), which represents a group of diseases with various subgroups (2). In 1996, the CJD Surveillance Unit (Edinburgh, UK) reported a series of 10 patients with a novel form of CJD called variant or vCJD (3). These patients were younger than those with sporadic CJD and displayed early psychiatric and behavioral manifestations (3). The number of deaths caused by definite or probable CJD infection increased from 35 in 1990 to 200 in 2003 (4).

Several animal studies have demonstrated immunoreactivity to PrP^{Sc}, not only in the trigeminal ganglion, but also in peripheral nerves (3, 5). Rutala and Weber reported that prions have not yet been confirmed in peripheral nerve fibers in patients with CJD or vCJD; however, the possibility of disease transmission from that tissue cannot be ruled out (7).

Endodontic treatment may present a risk of transmission of PrP^{Sc} through intimate contact of endodontic instruments with peripheral branches of the trigeminal nerve (8). Therefore, the German Robert-Koch-Institute categorized endodontic instruments to the class of highest concern as "critical instruments class B" in 2006, because of close contact to tissue and blood (9).

The importance of prion decontamination on nickel-titanium (NiTi) instruments is controversial. In the United Kingdom, reuse of NiTi instruments is discouraged. In the Australian Endodontic Society published suggestions for instrument reuse (10, 11), whereas the American Association of Endodontists and most other governing bodies have not stated a position to date.

Human Cytomegalovirus and Epstein-Barr Virus in Etiopathogenesis of Apical Periodontitis: A Systematic Review

Aleksander Jakowlewic, DDS, JOE 2013: 10

Conclusions

The findings of HCMV and EBV transcripts in apical periodontitis were controversial among the included studies. Herpesviruses were common in symptomatic and large-size periapical lesions, but such results failed to reach statistical significance. Further studies, including those based on an experimental animal model, should provide more data on herpesviruses as a factor in the pathogenesis of periapical inflammation.

Varicella Zoster Virus and Internal Root Resorption: A Case Report

Rita Talebzadeh, DDS, JOE 2015: 02

Paciente con historia de varicela complicada 5 años de data. DM II posterior, liquen plano.

Causa de la reabsorción???

Isolation and Taxonomy of Filamentous Fungi in Endodontic Infections

Christopher C. Lutzke,¹ DDS, MS, PhD; ² Sumitra Patel, DMD, MSc, PhD;³ Michael Patel, DDS, MS, PhD;⁴ and Shirley A. Sano, DDS, MS, PhD⁵

Abstract

In recent years the incidence of root canal infections has increased due to the presence of filamentous fungi in the microflora of teeth with vital pulps and preoperatively treated teeth and to perform the bacteriological study of the patient. Methods for isolating filamentous fungi from teeth with vital pulps show some positive results, while techniques in endodontic infections have been compromised with contamination. The isolated root canals from 1–14 days of root canal treatment to observe important growth. Samples with growth were isolated to study which the isolates 200 µg/ml sodium azide to prevent further development of the isolated by other microorganisms and reduce microaerobic bacteria. *Aspergillus flavus* fungi were isolated at 100 ppm 200 µg/ml sodium azide, considering the position was vital pulps. The spores Aspergillus were isolated from 10 samples after 10 days were isolated *Aspergillus flavus*, *A. green*, *A. niger*, and *A. ochraceus*. *Aspergillus flavus* isolated from 1 sample. *Aspergillus flavus* filamentous fungi isolated 200 µg/ml sodium azide and 100 µg/ml sodium azide were isolated from 1 sample. *Aspergillus flavus*, *A. green*, *A. niger*, *A. ochraceus*, *Candida parapsilosis*, *Candida krusei*, *Candida albicans*, *Candida tropicalis*, and *Candida rugosa* were isolated from 1 sample. *Candida krusei*, *Candida parapsilosis*, *Candida albicans*, *Candida tropicalis*, and *Candida rugosa* were isolated from 1 sample. The isolates of more with poly saccharide and protein filaments found from patients with vital pulps and preoperatively treated teeth.

The presence of fungi in root canal has been reported in literature. It is believed that isolated 200 µg/ml sodium azide may help to inhibit pathogenic and saprophytic fungi. The isolates were isolated in a previous case of endodontic failure in root canal pulp. The presence of these pathogens, has been attributed to saprophytic, however, it is not clear until now.^{1–5}

Huang and other researchers developed tools with environmental sampling methods for environmental isolation was isolated from the patient blood and tissue.^{1–5} Huang et al (1997) isolated environmental conditions, a possible influence of *Candida albicans*, *Candida krusei* and *Candida parapsilosis* bacteria, which are often isolated with bacteria.

Spagnoli (1997) isolated the presence of *Candida* and *Candida* were often associated with oral pathogenesis and found that *C. albicans* and *C. krusei* are obligate anaerobic fungi, *Candida* species.

Accordingly, pathogenesis of *Candida* pathogenesis, *Candida* species, and *Candida* are known to present endodontic infections. The presence of *Candida* in the root canal of teeth with vital pulps and preoperatively treated teeth. In Huang (1997) found 100% and 100% *Candida* infection, although 100% patients had vital teeth in Huang (1997). *Candida* species were present only surface in 27% of the 100 patients, and were not found on the vital teeth of these patients. In Gholami (1997) the patient showed surface of the vital teeth surface with the same in their isolated from their patients.

C. albicans is the most common human pathogen from patients with oral candidiasis and a primary pathogen of 1–20% disease. There are no reports on the presence of *Candida* fungi in root canal infections, although these pathogens have already been isolated from patients in other body sites.^{1–5} *C. albicans* and *Candida* fungi implicated a major role in pathogenesis of the pathogenesis disease.^{1–5}

The main purpose of this present study was to determine the presence of *Candida* was found to root canal treated teeth, poly saccharide and protein filaments isolated by culture methods to continue a separation which was performed at the specimen isolated.

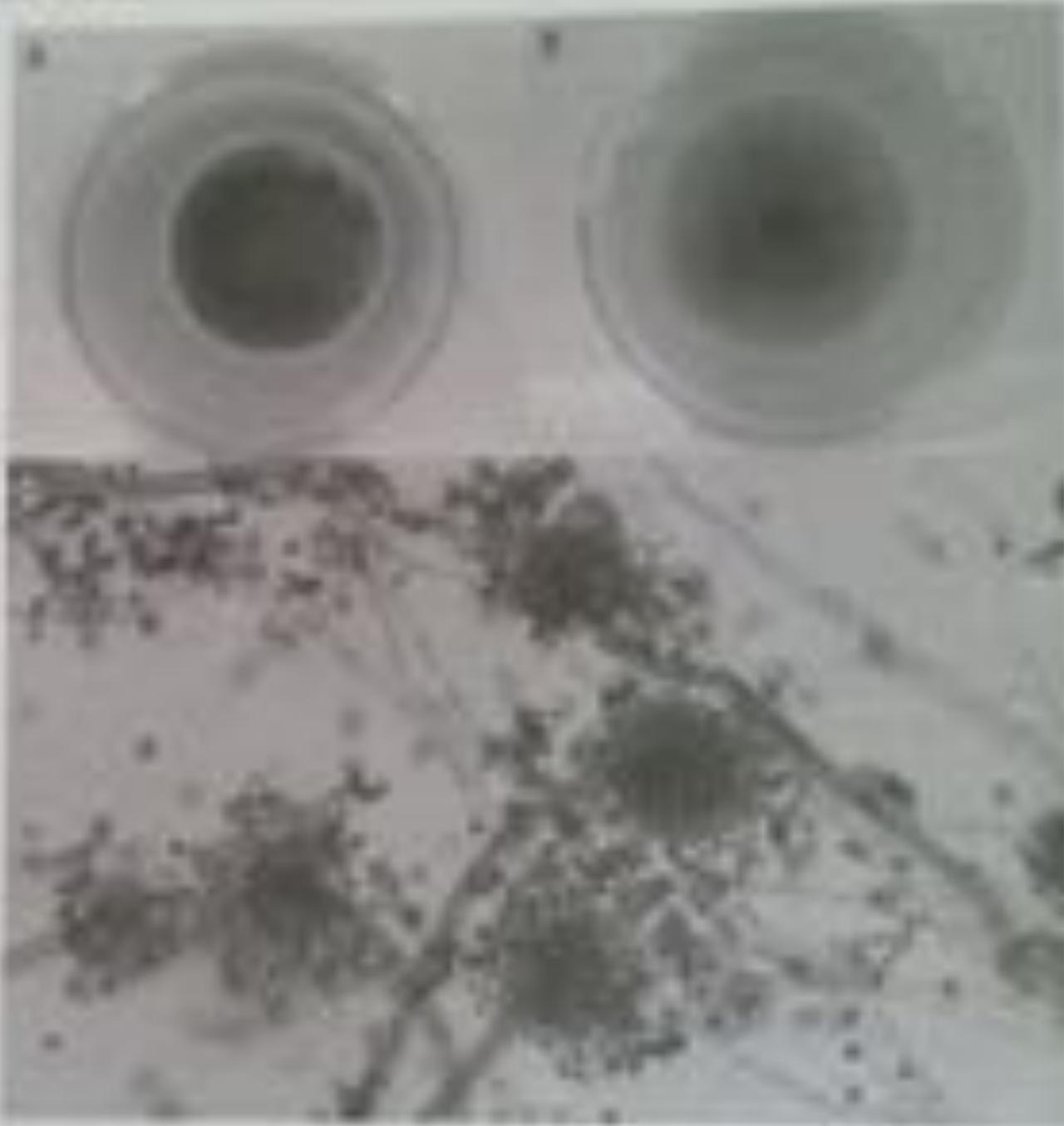


Figure 6. Electron microscopy of 100 nm diameter virus-like particles isolated from the urine of a woman with a history of recurrent urinary tract infections.

MICROBIOLOGÍA DE LA E.E.

(ANAEROBIOS ESTRICITOS AISLADOS DE PULPAS NECRÓTICAS)

ANAEROBIOS ESTRICITOS

CG +

Peptostreptococos: ***micros***
prevottii

CG -

Veillonella: **: parvula**

ANAEROBIOS FACULTATIVOS

CG +

Streptococos **: mitis**
oralis
intermedius

Enterococos **: faecalis**

MICROBIOLOGÍA DE LA E.E.

(ANAEROBIOS ESTRICITOS AISLADOS DE PULPAS NECRÓTICAS)

ANAEROBIOS ESTRICITOS

BG -

Porphyromonas: *gingivalis*
endodontalis

Prevotella:

intermedia
melaninogenica

Fusobacterium: *nucleatum*
necrophorum

BG +

Eubacterium: *alactolyticum*

Treponema: *denticola*
sputigena

DIAGNOSTICO????

- ▶ DEPENDE DE MIS OBJETIVOS:
AN.FAC.
AN.ESTRICTO



PREVENCION

- ▶ LOS RECOMENDADOS POR LA ADA PARA
PREVENCION DE CARIOS



TRATAMIENTO

- ▶ EJECUCION DE TTO.ENDODONTICO, C/S ABs



► PREGUNTAS?????????????????



MICROBIOLOGIA DE LA ENFERMEDAD PERIODONTAL

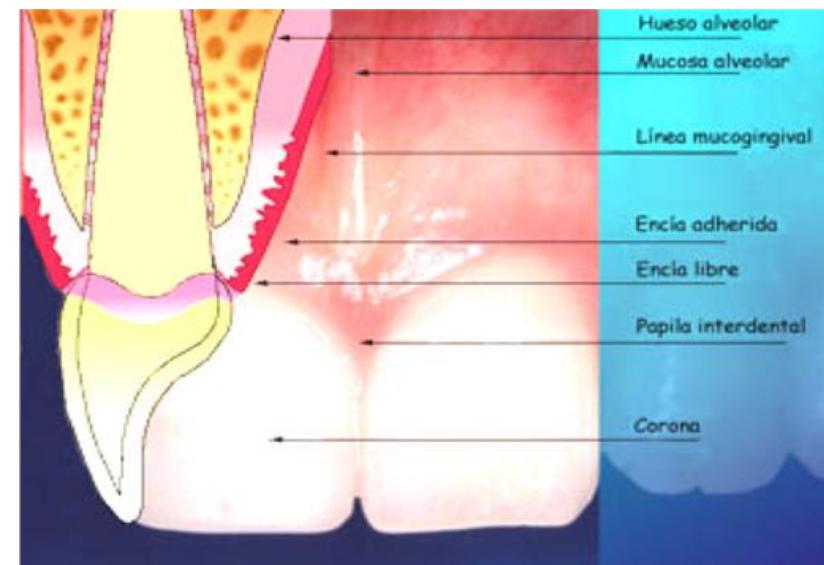


- ▶ CONCEPTO SALUD ENFERMEDAD y PERIODONTO.....

PERIODONTO

ESTRUCTURA QUE DAN FUNCION y SOPORTE AL DIENTE, CUYOS COMPONENTES SON:

- ENCIA
- LIG.PERIODONTAL
- CEMENTO RADICULAR
- HUESO ALVEOLAR



ENF.PERIODONTAL: DESVIACION DEL ESTADO DE NORMALIDAD DE LOS TEJIDOS DE PERIDENTARIOS

► Carranza, Newman, Takei, 2003. Periodontología clínica. Novena edición. México: McGrawHill Interamericana (pp 15 – 63)

A.I ASOCIADOS. A E.P.

- ▶ ATNC??
- ▶ BACTERIAS
- ▶ VIRUS
- ▶ HONGOS
- ▶ PARASITOS



MICROBIOLOGÍA DE LA E.P.

Porphyromona gingivalis (P.g.)

Prevotella: intermedia (P.i.)

Capnocytophaga (Cap.)

**Aggregatibacter actinomycetemcomitans
(A.a.) CBG(-)**

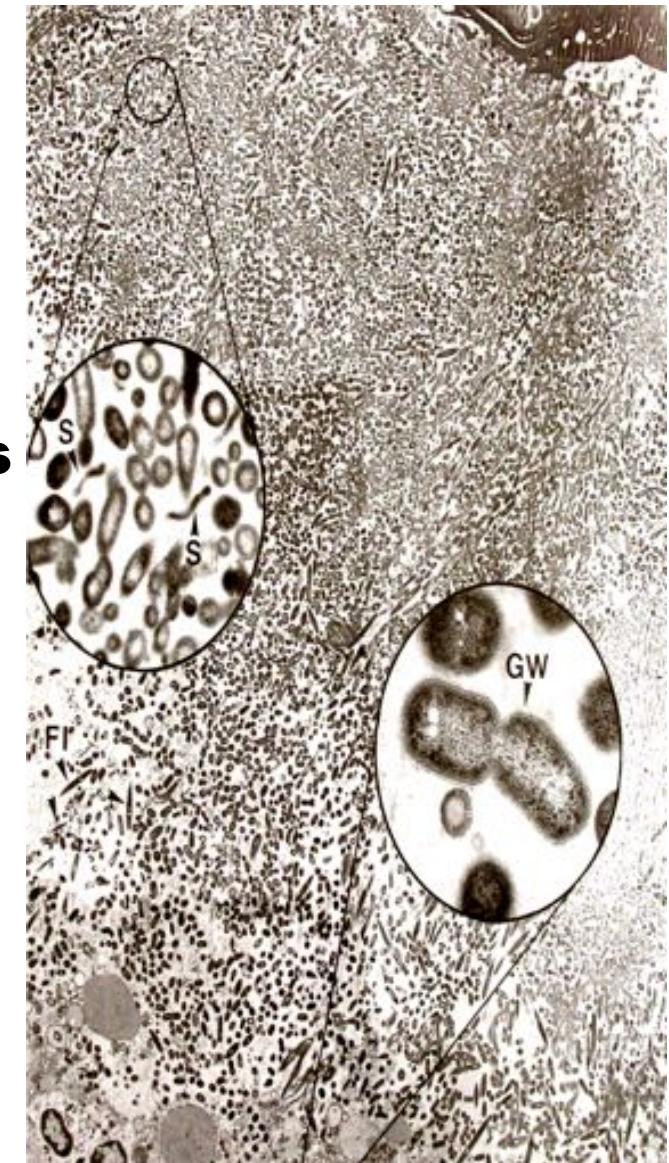
Treponema denticola (T.d.)

Fusobacterium nucleatum (F.n.) BG(+)

Tannerella forsythia

Dialister pneumosintes

Veillonella p. Eikenella c.



FACTORES PATOGENICIDAD A.a

LEUCOTOXINAS
COLAGENASA
ENDOTOXINA
TOXINA EPITELIAL
PROTEASA. (INACTIVAN INMUNOGLOBULINAS)
ESTIMULAN COLAGENASA
HIALURONIDASA
CONDROITINSULFATASA
FIBRINOLISINA
FOSFATASA
AMINOPEPTIDASAS
GLUCOSIDASA
FOSFOLIPASAS

MICROBIOLOGÍA DE LA E.P.

VIRUS

VVZ

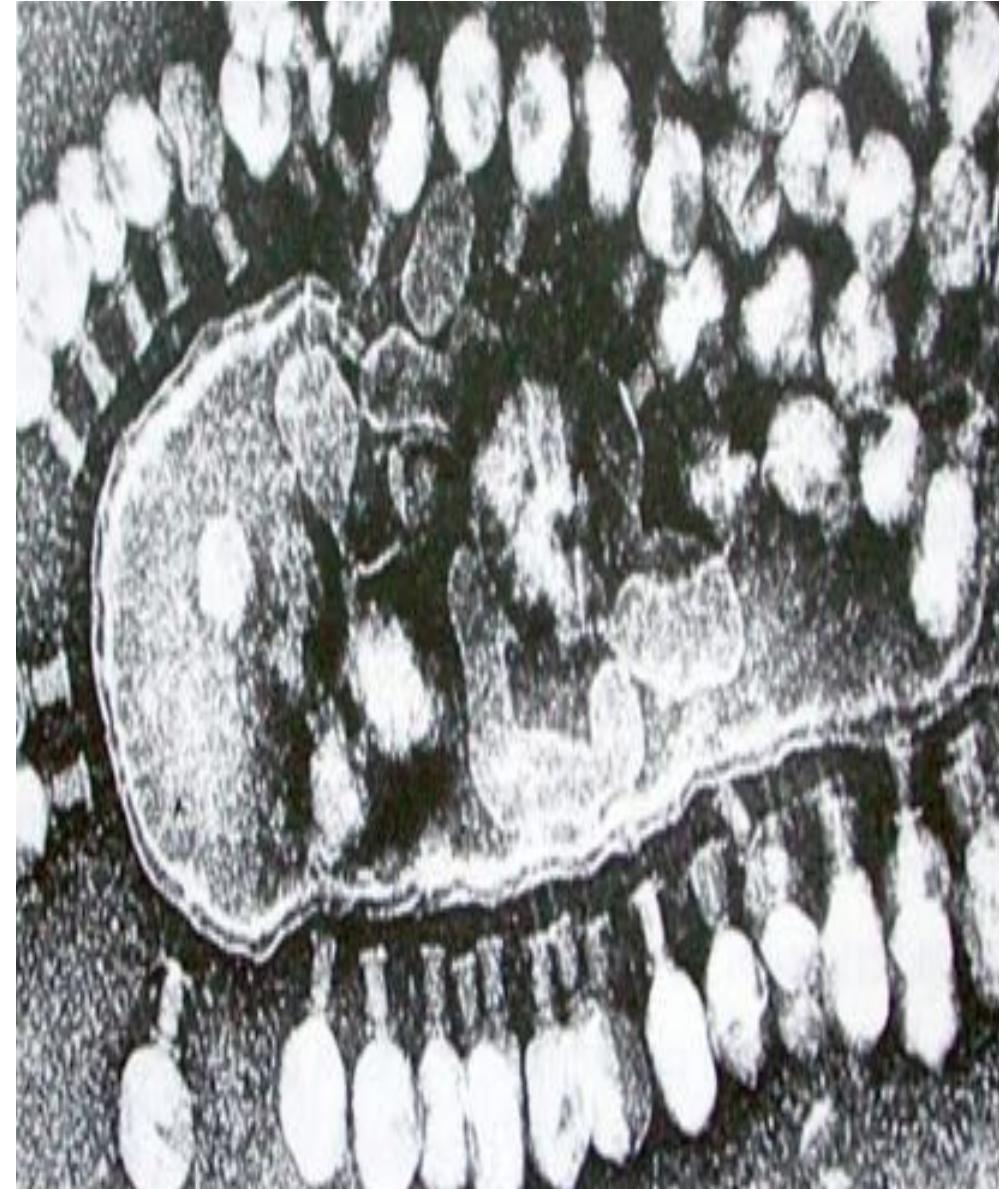
EBV

CMV

COXSACKIE

HERPES I y II

HPV



MICROBIOLOGÍA DE LA E.P.

VIRUS

Periodontology 2000, Vol. 38, 2005, 33–62
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PERIODONTOLOGY 2000

Herpesviruses in periodontal diseases

JØRGEN SLOTS

Virus: responsables de lesión tisular que permite crec.bacteriano

Argumentos para asociar E.P con presencia de HV:

PCR (+) para CMV y EBV y otros HV en lesiones periodontales

VH (+) en lesiones periodontales coexistentes con alta nº de periodontopatógenos

Células inflamatorias de p.o. Tenían secuencias de HV

VH aumenta expresión de CK en cel.inflam. y del tej.conectivo

Ausencia de VH en indiv.sanos con periodontopatógenos

Bacterial and viral pathogens in saliva: disease relationship and infectious risk. JØRGEN SLOTS & HENRIK SLOTS. Periodontology 2000, Vol. 55, 2011, 48-69

Eight herpesvirus species, with distinct biological and clinical characteristics, can infect humans:

herpes simplex virus-1 and -2

varicella-zoster virus

Epstein-Barr virus

human cytomegalovirus

human herpesvirus-6 (exant. súbito)

human herpesvirus-7 (exant. subito)

human herpesvirus-8 (Kaposi's sarcoma virus),
papilloma human virus

HIV

MICROBIOLOGÍA DE LA E.P.

HONGOS

Candida albicans



Dahlen G et al. 1995. Ocurrence of enteric rods, staphylococci and Candida in subgingival samples.
Oral Microbiology and Inmunology 10:42-46

Ohman S-C et al. 1995. The prevalence of Staphylococcus aureus, Enterobacteraceae species and Candida species y su relation to oral mucosal lesions in a group of 79 year olds in Goteburg.
Oral Microbiology and Inmunology 53:2-16

MICROBIOLOGÍA DE LA E.P.

PROTOZOOS

Entamoeba gingivalis

rol patógeno no demostrado

Trichomonas tenax
comensal



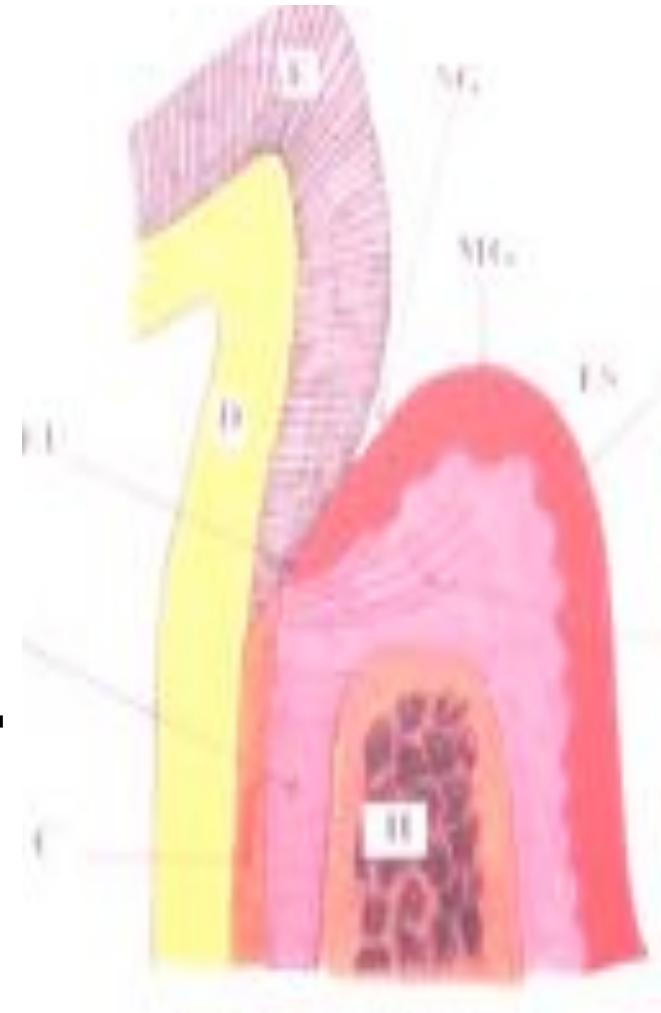
EVOLUCIÓN E.P.

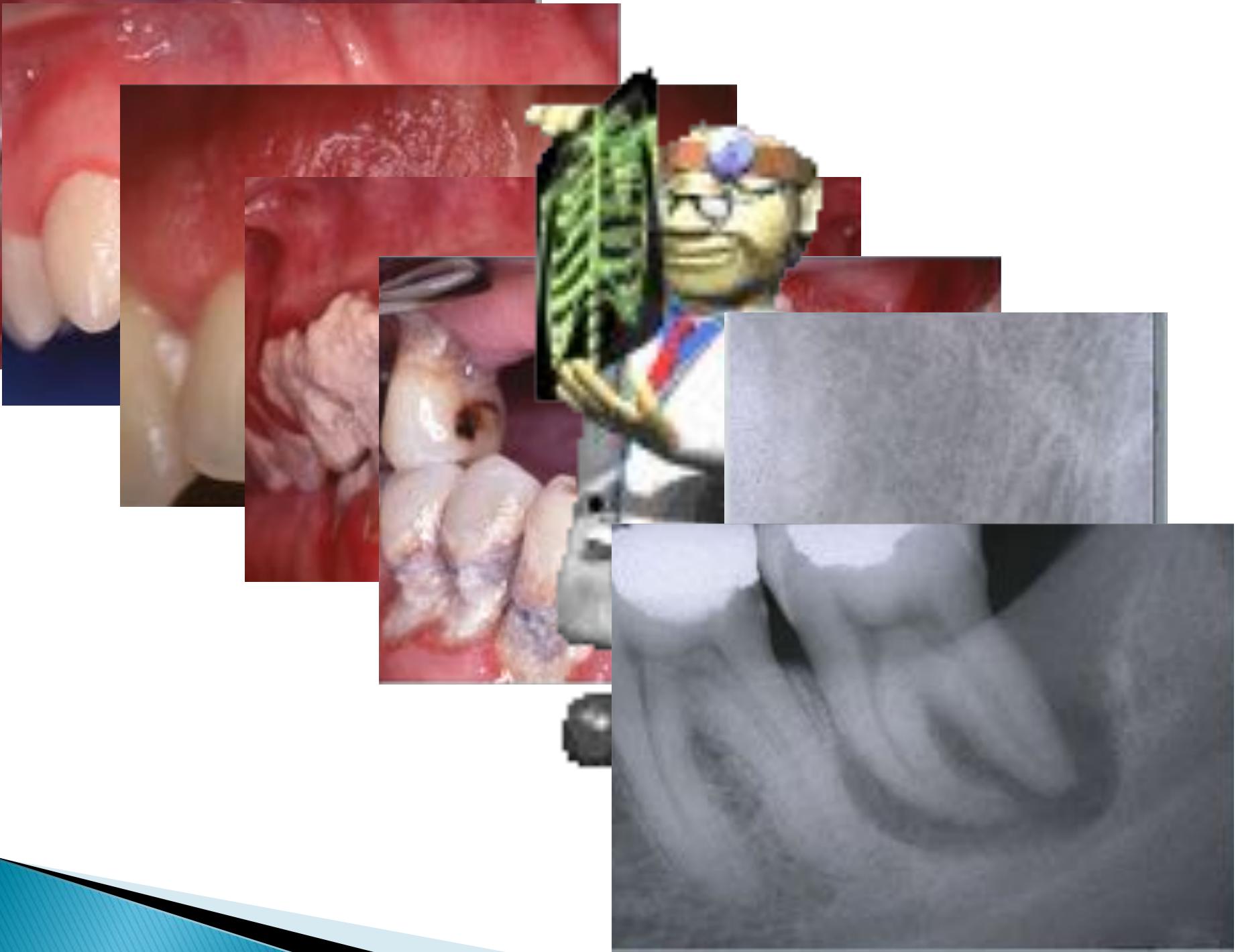
BIOFILM BACT.

GINGIVITIS

PERIODONTITIS

LESIÓN ENDOPERIODONTAL





BF. SUBGINGIVAL

Dos tipos:

Adherida al diente:

similar a supragingival: *S.sanguis*, *S.mitis*, *A.viscosus*
apicalmente: aumenta anaerobio: *Bifidobacterium*, *Eikenella*

No adherida al Diente: dos subtipos:

adherida al epitelio: adhesión, agreg., coagreg. vía fimbrias
A.a., *P.g.*, *P.i.*, *Fusobacterium*.

flotante o planctonica BG(-) anaerobios fac.o estrictos. Baja
agregación; *A.a.*, *Porphyromonas*, *Prevotella*
Treponemas



DIAGNOSTICO

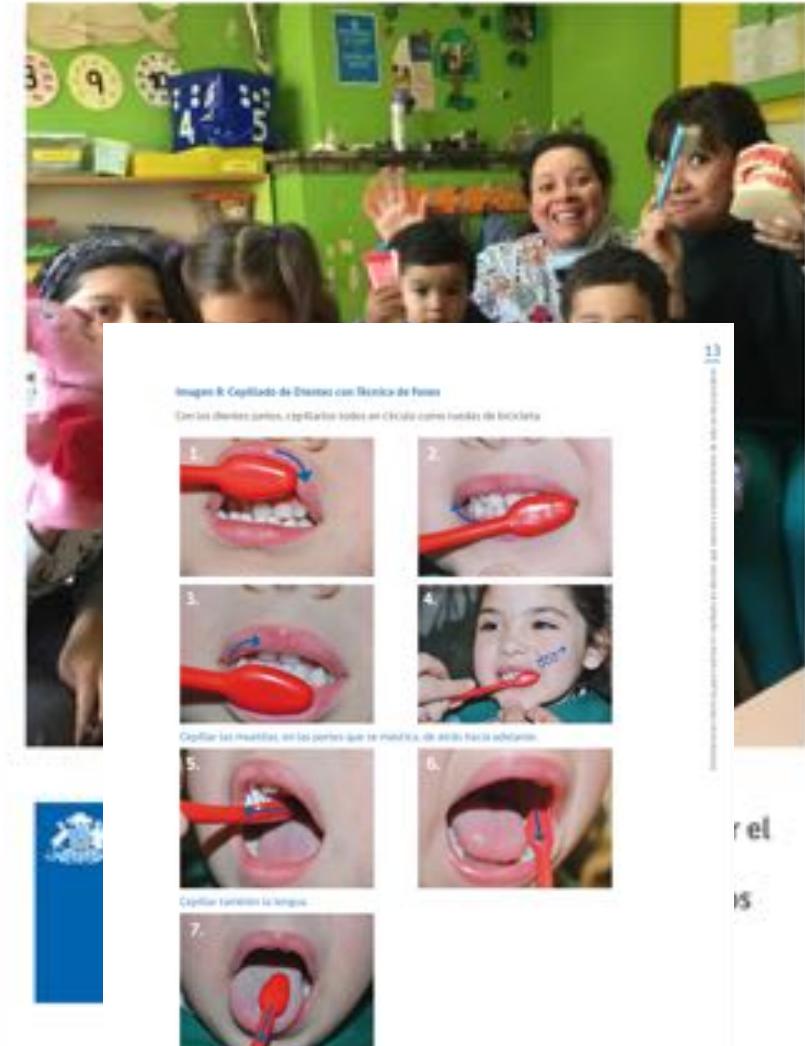
- ▶ CULTIVOS ANAEROBIOS
- ▶ EXAMENES MOLECULARES



PREVENCION

SEGÚN GUIA MINSAL 2016
TECNICAS DE CEPILLADO
NIÑOS y ADULTOS

CONTROLES PERIODICOS.



TECNICA CEPILLADO .

ESPECIALIDAD
ODONTOLOGÍA

Artículo de revisión

Comparación de diferentes técnicas de cepillado para la higiene bucal

Comparison of different tooth brushing techniques for oral hygiene

Lina María Rizzo-Rubio¹ • Ana María Torres-Cadavid¹ • Cecilia María Martínez-Delgado¹ • ¹CEDOC

¹ Odontología Universidad EES, Medellín, Colombia

² Odontólogo Estomatología, Magister en Dirección Universitaria, Universidad EES, Medellín, Colombia

Resumen

El principal factor etiológico a controlar por parte de los profesionales de la salud bucal, es la placa bacteriana, la cual desencadenará diferentes enfermedades como la caries dental, la enfermedad periodontal y otras enfermedades de carácter infeccioso.

Se ha observado que para la remoción de la placa bacteriana, el método más efectivo es el cepillado, el cual, realizándose de manera adecuada garantiza la higiene oral; sumado a este método se encuentra el uso de enjuagues bucales, la seda dental y los dentífricos como complemento para el mantenimiento de la salud bucal.

A través del tiempo, diferentes autores se han preocupado por describir técnicas de cepillado, las más mencionadas son: La técnica de Bass modificada, la técnica vibratoria de Charters, la técnica de Stillman modificada, la Técnica Fones y la técnica Scrub; se ha hecho énfasis en qué lo importante es realizar un cepillado minucioso que garantice la remoción de la placa de forma adecuada; pero, si es necesario escoger una en especial, se hará según la situación clínica de cada paciente.

Para lograr los objetivos de la higiene oral no basta con describir las técnicas y métodos existentes para lograrla, si no, que es fundamental la educación y promoción de la salud oral, por lo que los odontólogos e higienistas bucales deben orientarse a lograr que las personas se concienticen de la necesidad del autocuidado y garantizar que realicen una técnica de cepillado que remueva efectivamente los residuos alimenticios y microorganismos que ayudan en la formación de la biopelícula.

Fecha correspondencia:

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Comparación de diferentes
técnicas de cepillado para la
higiene bucal. Rev. CES Salud
2016; 29(2): 43-46.

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Revista CES Salud

BASS
CHARTERS
STILLMAN
STILLMAN MODIFICADA
FONES
SCRUB

TRATAMIENTO

- ▶ MANTENCION DE INTEGRIDAD DE TEJIDOS PERIRRADICULARES
- ▶ CIRUGIAS
- ▶ ANTIBIOTERAPIA



RESUMEN

- ▶ TIPOS BACTERIANOS EN E.E. y E.P. DEPENDE DEL AVANCE DE LA ENF. Y SU CARÁCTER ANAER.FACULTATIVO o ESTRICTO
- ▶ A.FAC. MAS ASOCIADO A E.E.
- ▶ A.ESTRUCT.MA ASOC.A E.P.
- ▶ DISEMINACION MAS ASOCIADA A E.E.
 - TEMA DE PROXIMA CLASE

FIIIIIIIIIIIIIIIIIIIN

►CAFECITO y A CLINICA

