



2.5.2: Mechanism to deal with examination related grievances is transparent, time bound and efficient

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DETAILS OF UNIVERSITY EXAMINATION/INTERNAL EVALUATION

FINAL YEAR REGULAR BATCH
FIRST INTERNAL EXAM (February 2025)
MCQS (1 MARK EACH) - DURATION 30 MINS

13

1. Biological width means
 - a) Sum of connective tissue and junctional epithelium.
 - b) Distance from the tip of the papilla to the base of the sulcus.
 - c) Distance from marginal gingiva to muco-gingival junction.
 - d) Distance from incisal edge of the tooth to muco-gingival junction.
2. The cell that is present in stratum spinosum and stratum basale is:
 - a) Basket cell
 - b) Melanocytes
 - c) Keratinocytes
 - d) Merkel cells
3. Collagen fibers are absent in:
 - a) Acellular extrinsic fibre cementum
 - b) Acellular afibrillar cementum
 - c) Mixed stratified cementum
 - d) Intermediate cementum
4. Reticular fibers found in periodontal ligament consist of:
 - a) Type I
 - b) Type IV
 - c) Type III
 - d) Type XII
5. Alveolar bone is:
 - a) Compact bone
 - b) Cancellous bone
 - c) Spongy bone
 - d) None of the above
6. Basal lamina consists of type of collagen fibres:
 - a) Type I
 - b) Type II
 - c) Type IV
 - d) Type III
7. The length of junctional epithelium is:
 - a) 0.25-1.35 mm
 - b) 0.5.75 mm
 - c) 1.0-2.0 mm
 - d) 1.0-1.5 mm
8. The predominant immunoglobulin in sulcular fluid is:
 - a) Ig A
 - b) Ig G
 - c) Ig M
 - d) Ig E
9. The gingival crevicular fluid is increased in all except:
 - a) Gingivitis
 - b) Smoking
 - c) Periodontal pocket
 - d) Trauma from occlusion
10. Parietal abscess is also known as:
 - a) Gingival abscess
 - b) Periodontal abscess
 - c) Periapical abscess
 - d) Periodontal cyst
10. Periodontal pocket wall between tooth and bone is:
 - a) Supra bony pocket
 - b) Intra bony pocket
 - c) Gingival pocket
 - d) Pseudo pocket
12. The recommended dose of Doxycycline in the form of low dose Tetracyclines for host modulation in periodontal disease is:
 - a) 10 mg, once a day
 - b) 10 mg, thrice a day
 - c) 20 mg, twice a day
 - d) 20 mg, thrice a day
13. Oral malodor is detected by:
 - a) Gas chromatography
 - b) Gas laser
 - c) Perio-tron
 - d) Perio-scan
14. Infra-bony pockets are treated by:
 - a) Gingivectomy.
 - b) Gingivoplasty.
 - c) Flap operation
 - d) Vestibuloplasty.

15. An apically repositioned flap

- a) Does not preserve the attached gingiva
- b) Does not increase the length of clinical crown
- c) Is the procedure of choice for palatal pockets
- d) Is a pocket elimination procedure

16. Which of the following procedure is a sequential step of osseous resection technique?

- a) Hemisection
- b) Root resection
- c) Radicular blending
- d) Tunneling

17. A periodontal flap using only horizontal incisions is called:

- a) Horizontal flap
- b) Unrepositioned flap
- c) Envelope flap
- d) Postal flap

18. Sequential steps for resective osseous surgery are

- a) Radicular blending, vertical grooving, flattening interproximal bone, gradualizing marginal bone
- b) Vertical grooving, flattening interproximal bone, gradualizing marginal bone, radicular blending
- c) Vertical grooving, radicular blending, flattening interproximal bone, gradualizing marginal bone
- d) Vertical grooving, radicular blending, gradualizing marginal bone, flattening interproximal bone

19. Which of the following bone defects offers the best chance for bone fill?

- a) 3 Walled defect.
- b) Osseous crater
- c) 2 Walled defect
- d) Hemisepta

20. Which of the following fiber groups can be observed even in case of extreme periodontal bone loss?

- a) Circular gingival fibers
- b) Gingivo-dental fibers
- c) Transseptal fibers
- d) Alveolar crest fibers

21. Chronic Periodontitis is Considered severe, when the attachment loss is :

- a) 3mm or more
- b) 4mm or more
- c) 5mm or more
- d) 6mm or more

22. BANA test measures activity of

- a) Calculus
- b) Cathepsin
- c) Elastase
- d) Trypsin like enzyme

23. Which of the following is the gold standard for testing breath malodor (halitosis)?

- a) Portable volatile sulfide monitor
- b) Self examination
- c) Gas chromatography
- d) Organoleptic rating by a judge.

24. The sixth complication of diabetes mellitus is

- a) Retinopathy
- b) Renal failure
- c) Ischemic heart diseases
- d) Periodontitis

25. The brushing method suited for children are:

- a) Bass method
- b) Charter method
- c) Fones method
- d) Stillman method

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INTERNAL ASSESSMENT BOOK

SUBJECT: PERIODONTICS

Tick Questions Attempted :

Q₁ ☒

Q₂ ☒

Q₃ ☒

Q₄ ☒

Q₅ ☐

Q₆ ☒

Q₇ ☒

Q₈ ☒

Q₁ 8 10

Q₅ 5

Q₂ 8 10

Q₆ 2 1/2 5

Q₃ 8 1/2 5

Q₇ 2 1/2 5

Q₄ 3 5

Q₈ 4 5

No. of Additional

TOTAL

Sheets used.

Total in Words

Evaluated by:

Name of the candidate: KRISHNA S

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Date: 5/02/2025

Signature of Invigilator

1)

Gingival Enlargement

- Gingival enlargement is defined as the increase in the size and number of cellular components in the gingiva.
- Gingiva is a part of oral mucosa that covers the alveolar process and surrounds the neck of the tooth.
- The factors that affect the size of the gingiva are
 - ~~the~~ cellular components
 - Extra cellular components
 - No. of cells. Number of cells.
- The gingival enlargement can be classified according to.
 - ① Based on ^{the cell} inflammatory response.
 - ① ~~Inflamm~~ Based on inflammatory response.
 - Acute gingival enlargement
 - Chronic gingival enlargement.
 - ② Based on ~~inflamm~~ enlargement systemic diseases and conditions
 - Systemic diseases
 - leukemia
 - Sarcoidosis
 - Wegener's granulomatosis
 - conditional enlargement seen in
 - Puberty
 - Pregnancy
 - Vitamin deficiency
 - plasma cell gingivitis

- Based on fibrotic enlargement
 - Drug induced

- Anticonvulsants
- Immunosuppressants
- Calcium channel blockers

- Based on Neoplasm

- Benign enlargement
 - Papilloma
 - Fibroma

- Malignant enlargement

- Squamous cell carcinoma

- Based on Pulp enlargement

- Enlargement due to Onchocerca ^{tenuis}
 - ie. tons, exostosis etc

- Enlargement due to gingival tissue
 - ie, protrusion of the gingiva ^{at} near the erupting tooth.

② BORKENHAMP AND ~~BARKER~~ classification

Grade 0 - None

Grade I - Enlargement confined to interdental papilla

Grade II - Enlargement confined to interdental papilla and marginal gingiva

Grade III - Enlargement involving interdental papilla and marginal gingiva

Grade IV - Enlargement involving attached gingiva

Grade V - Enlargement involving all gingiva

③ Angiotensin Classification

- Grade 0 - None
Grade 1 - Enlargement covering less than $\frac{1}{3}$ rd of the clinical crown
Grade II - Enlargement covering $\frac{1}{3}$ rd of clinical crown
Grade III - Enlargement covering more than $\frac{1}{3}$ rd of the clinical crown

Drug Induced Gingival Enlargement

Drug Induced Gingival Enlargement is caused due to the tissue response to the drug.
The Drugs inducing the gingival enlargements are mainly

- Anticonvulsants *Eg: Phenytoin*
- Immunosuppressants *Eg: Corticosteroids*
- Calcium Channel blockers *Eg: Nifedipine*

The Drug induced gingival enlargement is mild and inflammatory in response. It is usually confined to the interdental papilla.

The Drug induced gingival enlargement usually involves the facial and lingual surfaces causing a shiny red and edematous gingiva with rolled edge margin.

The gingival enlargement usually result in the formation of pseudopocket/fake pocket / Gingival pocket.

In mild cases of drug induced gingival enlargement is usually confined to the interdental papilla. In moderate cases confined to the interdental as well as the marginal gingiva. In severe cases, the enlargement involves the interdental, marginal and attached gingiva.

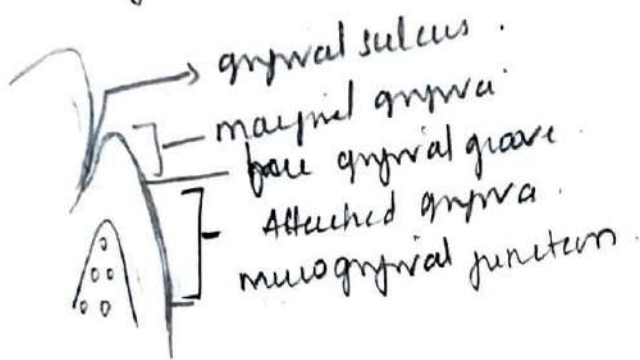
In drug induced gingival enlargement it occurs in the facial and lingual margins of the gingiva. It is shiny, edematous, reddish discoloration of the gingiva with rolled edge margins confined to adapting to the clinical crown structure. Bleeding on probing is seen sometimes.

Pathogenesis

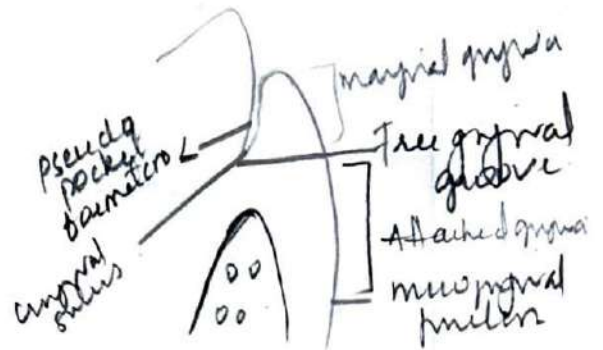
The drug intake causing the drug reaction within the body as a result increase immune response and inflammatory response as a result it will result in the enlargement of fibers in the tissues as a inflammatory response. There will be dilation of the blood vessels and intercellular space. The drugs with the fibers causing the enlargement. These symptoms can be reduced after the drug is reduced.

Histopathologic features

- Increase in no. of cells
- Increase in the ~~intercellular~~ ^{intercellular} ~~space~~ ^{space} ~~size~~ ^{size} of the cells
- Dilated blood vessels and
- lymphocytic infiltration, acanthosis seen.
- epithelial dysplasia seen



Normal gingiva



Enlarged gingiva

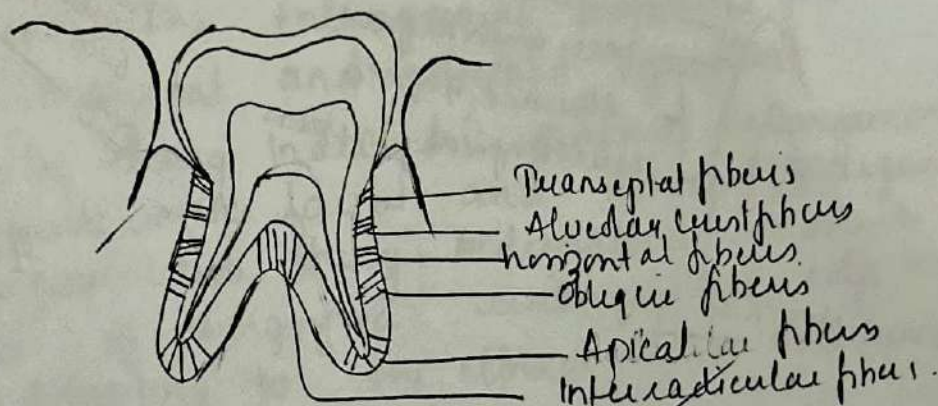
Management and Treatment

- * The first line management is the by identifying the cause and eliminating it. If it is drug induced, the gingival enlargement should be replaced by another suitable drug should be replaced by another with the physician's refusal.
- * Maintenance of the oral hygiene habits so as to avoid the chronic and acute inflammatory response.
- * Scaling and root planning is can of adhesion condition
- * ~~crinotomy~~ can be done

2.

periodontal ligament

periodontal ligament is a fibrous connective tissue that supports the tooth in the alveolar socket. Periodontal ligament is one of the main factor that supports the tooth with the surrounding structure.



Periodontal ligament mainly consist of fibers which
 → principle fibers
 These fibers are providing the main function that is supporting the tooth structure within the socket.

Functions of periodontal ligament

- * provides support
- * provides nutrition
- * shock absorption
- * Maintenance of blood supply
- * provides for homeostasis & contains pain receptors etc.
- * collagenase activity
- * cell to cell attachment.

Structures in periodontal ligament

- Cellular component
- Blood supply
- ~~PMNS~~ Fibers
- PMNS, Cytokines, Interleukins
- Keratinocytes, Merkel cells, Langerhans cells
- Desmosomes

Fibers of PDL

Mainly constitute of principle fibers

- Alveolar crest fibers
- Horizontal fibers
- Oblique fibers
- Apical fibers
- Inter radicular fibers

Alveolar crest fibers

These type of fibers provide attachment of the periodontium to the tooth structure. These fibers prevent the accumulation of debris, plaque formation and invasion of the bacteria. These fibers are inclined obliquely from the gingiva to the crest of alveolar bone.

Horizontal fibers

These fibers mainly prevent the teeth from the lateral extrusive movements. They proceed to the tooth surface horizontally. They prevent the intrusion of the tooth into the periodontium.

causative factors for the pathogenesis in the periodontal
cyments are

→ Accumulation of plaque and Calculus

→ poor Oral hygiene

→ Familial aggregation

→ periodontal pocket

Treatment & Management

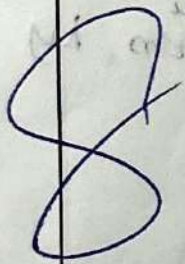
* Advice oral hygiene instructions

* Advice scaling

and root planing

* Flap surgery

* New tissue regeneration



3.

Halitosis

Halitosis is defined as subjective perception after smelling some one's breath.

Halitosis can be classified as:

- Genuine Halitosis
- Halitophobia
- Pseudohalitosis

Halitosis is mainly caused by the production of volatile sulfur compounds (VSCs) by the proteolytic degradation of the peptides in the saliva, debris and epithelium by the microorganisms.

- VSCs are →
- Methyl mercaptan
 - Hydrogen Sulfide
 - Dimethyl Sulfide

Bacteria causing Halitosis mainly *Sporophycomonas gingivalis*
→ *Peptonum denticola*

Etiology

- * Intraoral Causes
- * Extraoral Causes

* Intraoral Cause.

- It can be pathological as well as physiological
- Morning breath
 - After the intake of specific food
 - Medications

pathological due to

- poor oral hygiene
- periodontitis
- Abscess.
- Tongue coating

• poor oral hygiene

Accumulation of the plaque, debris and calculus inside the mouth. ~~production of~~ More microorganisms in the oral cavity production of enzymes by bacteria production of VSCs.

• Medications

Some medications can cause halitosis. Such as metronidazole.

• periodontitis

the inflammation of the periodontium can cause halitosis

• Tongue coating

severe tongue coating can cause halitosis - use tongue coating can be graded according to ~~severity~~ order of tongue scrapers can be effective.

• Intake of specific foods

Mostly onions and garlics they can cause halitosis via endive. the physiological

• Neurostomia

Management

- * Masking the malodour
- * Reduction of Intraoral nutrients and contents
- * Reduction of oral microbial load.
- * Reduction of malodorous gases.
- * Conversion of VSCs.

Masking the malodour

It can be made by using mouthwashes, lozenges, gums and chewing gums mainly used. Chlorhexidine mouthwashes chewing gum can be used as it can unclog the salivary secretion.

Chemical

Reduction of the intraoral nutrients
Mainly used is chemical agents are chlorhexidine, Triclosan antimicrobial agents.

Reduction of the oral microbial load

By maintaining the good oral hygiene proper treatment taken. ~~for~~
Scaling should be done if there is excess Calculus & plaque formation.
No screen can of tongue coating tongue scrapers should be used.

Rendeing the malodorous gas.

- ① Conversion of the ~~volatile~~ ^{volatile} gas to metallic non-volatile gas by using metallic solutions containing ^{Zinc} ~~acid~~ which converts the volatile gas to non-volatile.

4. Steps in Plaque formation

Plaque is a structural entity formed by the accumulation of the microorganisms, debris, seen the tooth surface and the restorations and prostheses.

Steps in Plaque formation

→ Attachment of the food debris on the tooth surface



Accumulation of the microorganisms in the tooth surface



Colonization of the tooth surface by the microorganisms



The combined products and enzymes produced by the microorganisms combined with the saliva and reaction takes place



Calcified inorganic structure formed around the tooth



~~Plaque~~
~~above the tooth surface~~

above the tooth surface there will be pellicle formation.

↓
pellicle layer found above the tooth surface.

↓
causes inflammatory responses in the gingiva
plaque can be classified on basis of deposition

→ subgingival plaque

→ supragingival plaque

subgingival plaque
the accumulation of the plaque
below the gingival margin

supragingival plaque
the accumulation of the plaque
above the gingival margin

if the plaque is not removed it can cause
many factors which weakens the
periodontium

- it can cause halitosis
- Deepening of the periodontal gingival sulcus.
- pocket formation
- gingival enlargement due to gingivitis

Bacteria responsible for plaque formation A.a, T.f, L.a, P. gingivalis.

Management and treatment

- Maintain good oral hygiene
- Scaling & Polishing
- Paper bushing technique
- Oral prophylaxis

G.

SDD.

Sub antimicrobial dose of doxycycline

- It mainly comes under host modulation therapy.

- It act as an adjuvant for scaling and root planning (SRP) and ~~it is not~~ used in monotherapy.

- ~~There~~ The commercially available subantimicrobial dose of doxycycline is Periostat.

- Dosage of SDD is doxycycline twice a day for 6-9 months.

If dosage is altered ~~use~~ after the initial treatment phase.

SDD causes

- decreased bone turnover rate.
- decreased osteoclastic activity.
- increases the cellular response.
- increased inflammatory and immune response.

~~show~~

Indications

- Act as an adjuvant in the scaling and root planning.
- ~~It is not~~ It provides better healing.

Contraindications Disadvantages

- It is not used in monophase therapy as it can cause many side effects.
- It is not used in patients with drug allergies.

- As the ~~bone~~ turnover is less it can take cause poor healing of the minor non injuries
- It is contraindicated in cases of deficiencies in the maxilla and the mandible as because it will delay the healing process

2/ there is also the condition of osteomyelitis.

4. Diabetes.

7. Diabetes and periodontitis
 the both conditions associated with the diabetes
 Diabetes is a systemic condition associated with the decreased increased blood glucose level.
 Diabetes can be classified as.

Type I diabetes mell

Type II diabetes

Gestational diabetes

Microvascular changes associated with diabetes

- Retinopathy
- Neuropathy
- Nephropathy

Macrovascular changes

- atherosclerosis
- renal failure
- Periodontitis

1) Type I - Diabetes mellitus

Mainly ~~is~~ insulin dependant diabetes mellitus

Usually occurring in children.

It can be hereditary

Insulin therapy required

2) Type II - Diabetes Mellitus

It ~~can be~~ is mainly insulin resistant diabetes

It is mainly associated with the change in the lifestyle.

It can be treated with medication and improvement in the life style

Gestational diabetes

It ~~mainly~~ occurs in the pregnancy time as it mainly occurs in the third trimester of pregnancy

Control of the diabetes is required in the pregnancy as it can reduce the prematur delivery.

It early ~~diagnosis~~ ^{diagnosis} it can interfere with the embryogenesis and organogenesis

~~Periodontitis and oral~~ Diabetes associated oral manifestations

Diabetes can cause

- Delayed wound healing
 - Periodontitis
 - Tooth mobility
 - Angular cheilitis
 - Infections, ulcers
 - It can cause dry mouth
 - It can cause periodontal abscess, multiple abscesses
 - Bleeding can be there.
 - Stomatitis
- ~~of these is the test~~
Hb A1c is the test

Glycated Hemoglobin assay method is an test used to detect the glycated hemoglobin level. If it is less than 4. this condition is normal.

Diabetes

Pathogenesis

Caused by impaired glycogen uptake →
Impaired blood glucose level →
Decreased production of the insulin
Production of Abnormal glycated end products
Hormones associated with increased glucose level

- Glucagon
- Glycogen
- Thyroid hormone

Hormones which decreases the blood sugar
and
→ Insulin

There is receptor for AGE
ie RAGE.

Most of the periodontal problems can be controlled
by controlling the diabetes.

Treatment -

• Insulin

• Oral medications - Glimepiride

24 Any periodontal therapy should be given after the
control of diabetes if not it can worsen the
conditions

8. Classification of pocket

Periodontal pocket is the pathological
deepening of the gingival sulcus.

It can be classified according to
① the involvement -

- Gingival pocket
- Periodontal pocket

• Gingival pocket

- Also known as pseudopocket / Fake pocket -
- It is a fake pocket. It can be mainly formed due to the gingival enlargement -
- Treatment: can be done can be.

• periodontal pocket

- Also known as True pocket -
- It is caused by the loss of attachment between the tooth and the tissue.
- Treatment can be scaling and root planning.
- if no response is there flap surgery can be done.
- removal of pocket wall.

②

Simple pocket

Based on the surface of tooth involved only one surface is involved. It can be facial or lingual surface.

→ Compound pocket

the two surfaces of the crown of the tooth are involved.

→ Complex pocket / Special pocket

In which the pocket starts from one surface and follows the contour of the tooth.

⑧ Based on the level of attachment:

- 1) Supra bony
- 2) Infra bony

• Supra bony
The ^{head of the} pocket is attached ~~to~~ Coronal to alveolar bone

• Infra bony
The base of the pocket is attached apical to the alveolar bone

In Supra bony

- It can be ~~vert.~~ Horizontal bone loss.
- Treatment is scaling and root planning if there is no recurrence it can be associated with flap surgery.

In Infra bony

- There is angular bone loss
- The treatment is flap surgery and Alveolar tissue regeneration process.

Treatment

- Scaling and root planing
- Periodontal tissue regeneration
- Flap surgery

DEPT OF PERIODONTICS, MINDS
FINAL YEAR REGULAR BATCH
SECOND INTERNAL EXAM (May 2025)
MCQS (1 MARK EACH) - DURATION 30 MINS

19

1. The term "periodontal plastic surgery" was introduced by:
☒ A. Miller ☐ B. Goldman
☐ C. Cohen ☐ D. Friedman
2. A technique involving the placement of a barrier membrane to promote tissue regeneration is known as:
☐ A. Free gingival grafting
☐ B. Subepithelial connective tissue graft
☒ C. Guided tissue regeneration (GTR)
☐ D. Lateral sliding flap
3. All of the following are mucogingival surgeries except
☐ A. Frenectomy ☐ B. Gingivectomy
☒ C. Vestibuloplasty ☐ D. Free gingival autografts
4. Knife with kidney shaped blade design used for gingivectomy is
☐ A. Orba Knife ☐ B. Kirkland Knife
☒ C. Buck Knife ☐ D. Merrifield Knife
5. Modified Widman Flap was given by
☐ A. Neuman ☒ B. Ramjord
☐ C. Morcus ☐ D. Sullivan
6. Subgingival delivery system of doxycycline is available as
☐ A. Microdox ☐ B. Actisite
☒ C. Atridox ☐ D. Arestin
7. Which of the following antimicrobial agent is not available for local drug delivery
☐ A. Tetracycline ☐ B. Doxycycline
☒ C. Amoxicillin ☐ D. Chlorhexidine
8. What dosage of Subantimicrobial Dose Doxycycline (SDD) is used as an adjunct to SRP in the treatment of chronic periodontitis, twice daily for 3 months, upto a maximum of 9 months of continuous dosing?
☒ A. 20 mg ☐ B. 2 mg
☐ C. 10 mg ☐ D. 1 mg
9. Which type of cementum is found in the cervical third of the root?
☐ A. Intermediate cementum
☐ B. Cellular mixed stratified cementum.
☐ C. Cellular intrinsic fiber cementum
☒ D. Acellular extrinsic fiber cementu
10. Bone blend is a form of
☒ A. Xenograft
☐ B. Undecalcified freeze dried bone allograft
☐ C. Autogenous bone graft
☐ D. Decalcified freeze dried bone allograft
11. Graft when taken from the different species is called as
☐ A. Autograft ☐ B. Allograft
☐ C. Lsograft ☒ D. Xenograft
12. Allograft includes
☐ A. Bioactive glass ☒ B. RDBA
☐ C. Bioplant ☐ D. Osseous coagulum

- ✓ 13. One wall vertical defect is called as
 A. Osseous crater B. Reverse architecture
 C. Hemi-septum D. Ledge
- ✓ 14. Plateau like bone margins caused by resorption of thickened bony plates is called
 A. Hemiseptum B. Craters
 C. Buttress bone D. Ledges
- ✓ 15. Genetic factor is a
 A. Risk factor B. Risk predictor
 C. Risk determinant D. Risk indicator
- ✓ 16. Tricalcium phosphate is
 A. Autograft B. Allograft
 C. Xenograft D. Alloplast
- ✓ 17. In organic content of cementum is
 A. 45-50 % B. 50-60 %
 C. 65-70% D. 80-90%
- ✓ 18. Buttressing bone formation occurs due to?
 A. Normal variation of bone B. Food impaction
 C. Aggressive periodontitis D. Trauma from occlusion
- ✓ 19. Three walled intrabony defect means
 A. One wall present B. Two walls present
 C. Three walls present D. All four walls present
- ✓ 20. Osseous craters are most common in
 A. Maxillary canines B. Maxillary molars
 C. Mandibular canine D. Mandibular molars
- ✓ 21. In a partial thickness flap, the periosteum:
 A. Is removed with the flap B. Is left intact on the bone
 C. Is incised and repositioned apically D. Is sutured separately
- ✓ 22. Pattern of bone destruction in case of food impaction is
 A. Horizontal bone loss B. Angular bone loss
 C. Craters D. Ledging
- ✓ 23. If the radicular bone is apical to the interdental bone, then it is known as
 A. negative architecture B. ideal architecture
 C. flat architecture D. positive architecture
- ✓ 24. Xenografts are
 A. Osteoinductive B. Osteogenic
 C. Osteoconductive D. None of the above
- ✓ 25. What is the best clinical tool for differentiating endodontic pathosis from periodontal one?
 A. Percussion. B. Probing patterns.
 C. Location of swelling D. Pulp vitality testing.

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INTERNAL ASSESSMENT BOOK
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Tick Questions Attempted :

Q₁ ☒ Q₂ ☒ Q₃ ☒ Q₄ ☒ Q₅ ☒ Q₆ ☒ Q₇ ☐ Q₈ ☒

Q₁ ☒ 10

Q₅ ☒ 5

Q₂ ☒ 10

Q₆ ☒ 5

Q₃ ☒ 5

Q₇ ☐ 5

Q₄ ☒ 5

Q₈ ☒ 5

No. of Additional

TOTAL

23+1 45

K. Keerthana

Sheets used.

30

Total in Words

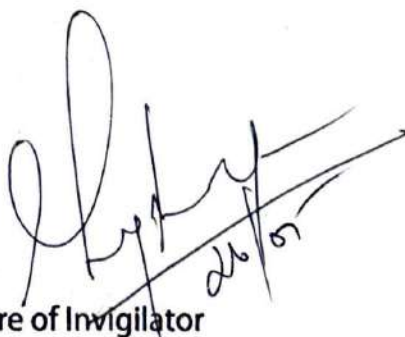
Evaluated by: DR. NANDITHA

Name of the candidate: K. KEERTHANA

Reg. No: 21DS0247

Signature 

Date: 27-5-25

Signature of Invigilator 

SECTION - A .

SYNOPSIS

- * INTRODUCTION
- * DEFINITION OF GRAFT
- * CLASSIFICATION
- * MODIFIED WIDMAN
FLAP

INTRODUCTION:-

* Periodontitis is always derived from the gingivitis but Gingivitis may not mandatorily evolved to periodontitis.

* Severe periodontitis may induce the bone loss, it may be generalized or localized in nature.

* There are several treatment for the bone loss, one of the treatment is the bone graft.

DEFINITION:-

Bone graft is defined as the substance placed in the bone lost area, may simulate the normal anatomy of the bone and restore the normal function of the bone.

CLASSIFICATION:



Allograft :-

A graft is taken from the different individual of same species

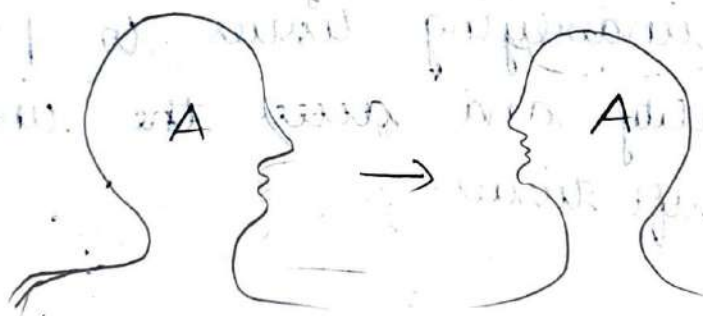


Autograft:-

* A graft taken from the same individual

* It may be taken from the one structure of an individual & transform it into another place of same individual

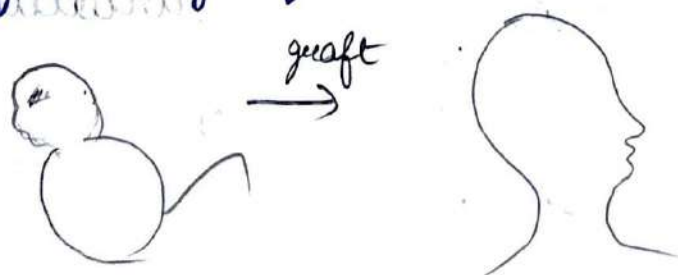
* It does not show any host-immune rejection of the graft.



Xenograft:-

* A graft taken from the different species

* It shows mostly host immune rejection of the graft.



Alloplast :-

* A synthetic material is used as an graft.

MODIFIED WIDMAN
FLAPFlap:

Flap is defined as the section of gingiva or / mucosa that is separated from the underlying tissues to provide visibility and access the underlying bone and soft tissues.

Indications

- Deep pocket
- Osseous defect
- Gingival Inflammation
- Gingival overgrowth
- Furcation

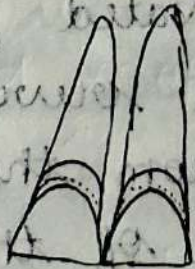
* There are several types of flap surgeries are performed to treat the defect, one of them is the "Modified Widman Flap".

* It is introduced by "Rijmford".

* The original widman flap leave the raw area of the root after the surgery which interferes with the esthetic concern & re-infection of the exposed site.

* To overcome this, modified widman flap was introduced.

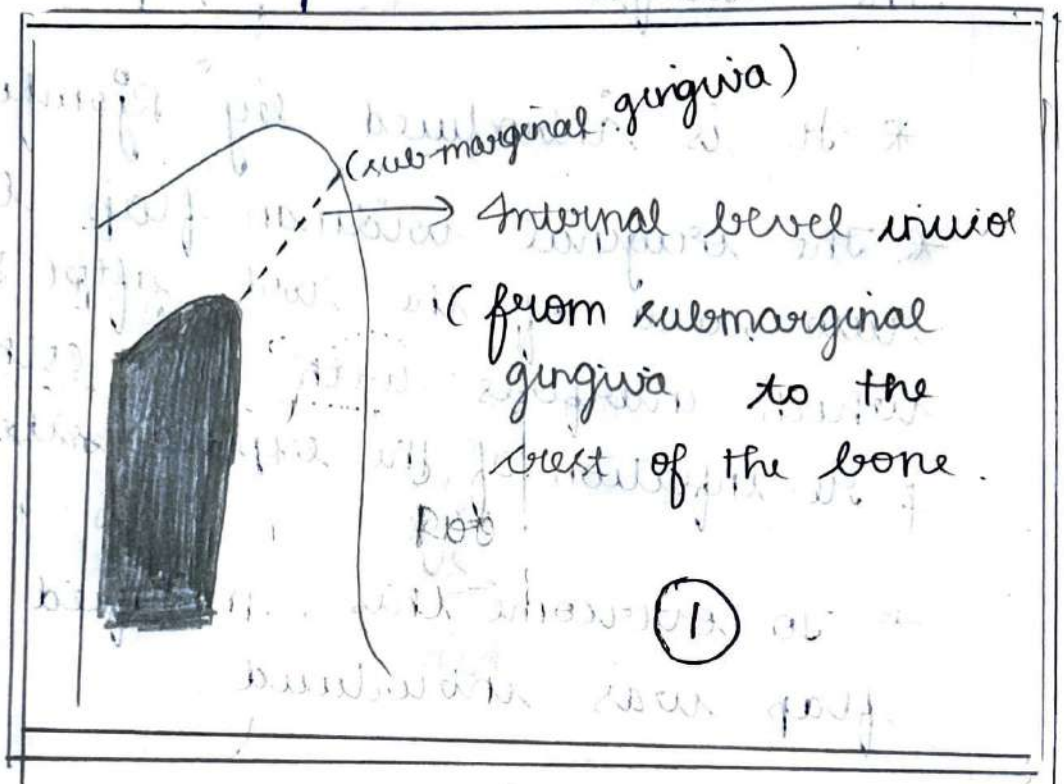
STEP - ① - INCISION



* The first step is to give an internal bevel incision which should be given from 1-1.5 mm below the marginal gingiva to the crest of the bone.

* The incision should be performed using the NO: 11 or NO: 15 BP blade.

* No: 12 BP blade should be used for mandibular posteriors to provide good access to the procedure

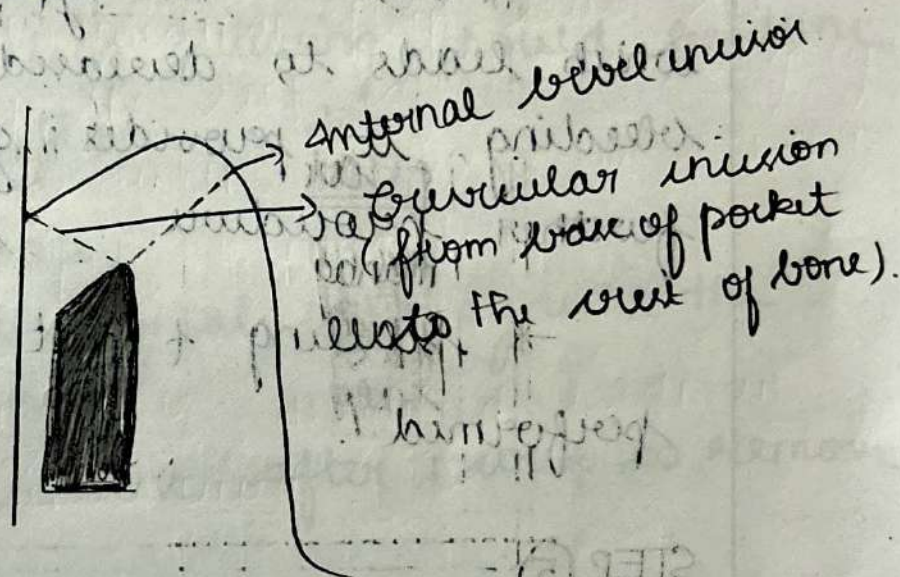


STEP ② :-

* The flap is elevated and the second incision called ovicular incision should be made from the base of the pocket to the crest of the bone.

* Together with the internal bevel incision, a V-shaped wedge tissue can be obtained.

* This wedge shaped tissue contain some amount of granulomatous tissue, it should be removed and the flap is elevated with the periosteal elevator to put the third incision.



STEP (3) * The third incision is the interdental incision which is performed interdentally between the tooth.

* This tissue consists of collar of tissue.

* This incision should be performed by using Oscar or Berk Knife.

STEP (4) :-

* After elevating the flap, curettage the soft tissue in the surface of the root.

* Remove the granulation tissue which leads to decreased or stoppage of bleeding, it provides good visibility to further procedure.

* Scaling + Root planning should be performed.

STEP (5) :-

* Osseous Reshaping should be done.

* The bone structure should be contoured & the extra bony projections should be trimmed with Rongeur which helps in easy & well adaptation of the flap.

STEP (6) :-

The flap should be thinned such that it will well adapt to the

bone and cause good healing.

STEP ⑦ :-

* After adapting the flap against the bone above the exposure of the bone,

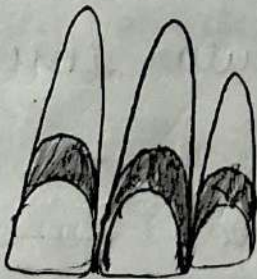
⇒ Continuous sling suturing should be done to close the flap.

Recall the pack

* Place the periodontal pack against the suture.

* Recall the patient after 1 week to remove the suture.

Before surgery



Recession
Present

After surgery



Recession
closed



After 1 week

(After removal of suture)

Types of flap

Based on exposure of bone

- Full thickness flap
- Partial thickness flap

Based on placement of flap

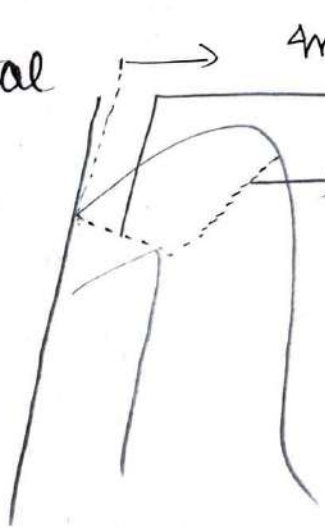
- ⇒ Undeplaced flap
- ⇒ Displaced flap

Based on management of flap

- Papillary preservation
- Conventional flap

- Apically placed
- Corionally placed
- Laterally placed

3 horizontal incisions

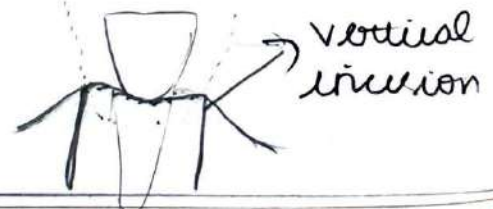


Interdental incision

Curvicular incision

Internal bevel incision

Vertical incision



2)

SYNOPSIS
* INTRODUCTION
* RISK
* RISK ELEMENTS
* EFFECT OF SMOKING ON PERIODONTIUM

Introduction :-

* various factors are responsible for causing disease in human.

* When these factors exposed to the man it leads to disease

* These factors may be modifiable or not modifiable.

* The disease may depends on the time of exposure along with the host immune response

RISK :

Risk is defined as the factor that cause disease when it is exposed by the human.

VARIOUS RISK ELEMENTS:-

Risk factor:-

* The factor which cause disease when the host immune system get lowered.

* It can be modified by the host & may get prevent the disease.

There are,

- ① SMOKING (TOBACCO)
- ② DIABETES MELLITUS
- ③ BACTERIA

Risk determinants:-

These are the one which cannot be modified by the host.

There are,

- ① Genetics
- ② Socio-economic status
- ③ Stress
- ④ Age
- ⑤ Gender

⇒ Smoking:-

* Smoking is the most frequent type of risk factor which causes periodontitis in man.

⇒ Diabetes mellitus:-

* Diabetes mellitus is a chronic hypoglycemic disease characterized by the decreased glucose level in the blood.

* In DM patient, due to hormonal imbalance & decreased immunity, the bacteria will get easily accumulated in the plaque leads to periodontitis.

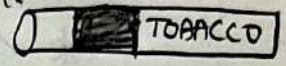
⇒ Bacteria:-

* Mostly anaerobic bacteria are accumulated in the plaque & causes periodontium destruction.

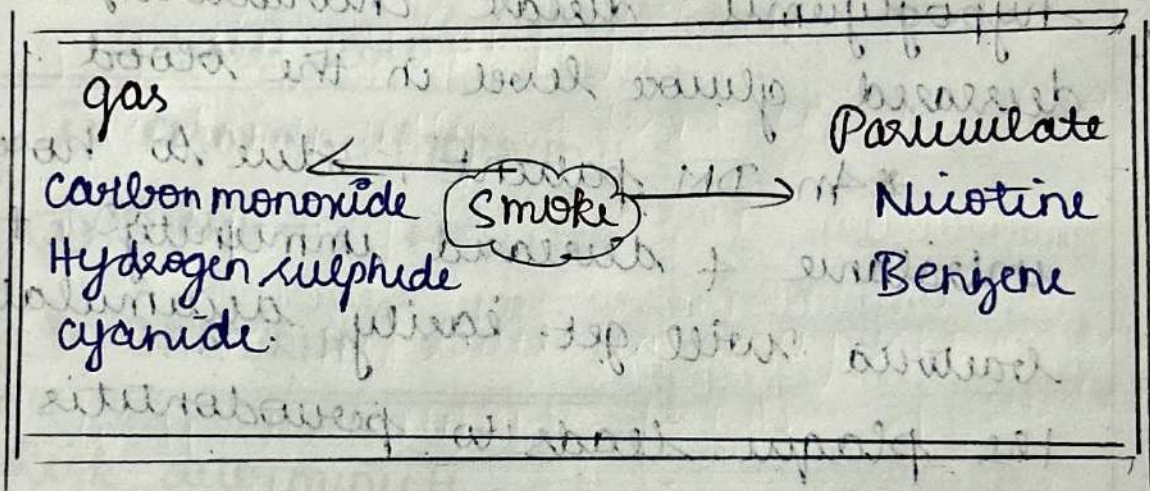
* *Peptostreptococcus*, *Tannerella forsythia*, *Campylobacter rectus*, etc.,

* Once the host immunity level get reduced, this causes destruction of the periodontium.

EFFECTS OF SMOKING ON PERIODONTIUM.



- * smoke contains various noxious particles, in which both particulate & gas particles are present



- * Among these nicotine is the major noxious product which causes vasoconstriction of the blood vessels, thus the periodontium in the smoking persons, do not show any clinical signs like bleeding, etc.

- * Smoking effects on periodontium is classified into 3 types,
the effect on,
 - * Physiological
 - * Immunological
 - * Microbiological

i) Physiological :-

Normally, the periodontal disease may show clinical signs like bleeding, exudate, etc.

But in smoking persons due to the action of nicotine, there is a absence of clinical signs & symptoms.

- * Decreased bleeding

- * $\downarrow$ GICF

- * Low subgingival temperature

- * Low effect on treatment

ii) Immunological

- * In smokers, there is altered or impaired neutrophil chemotaxis towards the infected site.

- * Due to the impaired neutrophil function, the host immune system can't able to perform the protective mechanism.

- * There is an ~~aged~~ Altered glycation endproducts, associated with the diabetes mellitus patient which is more

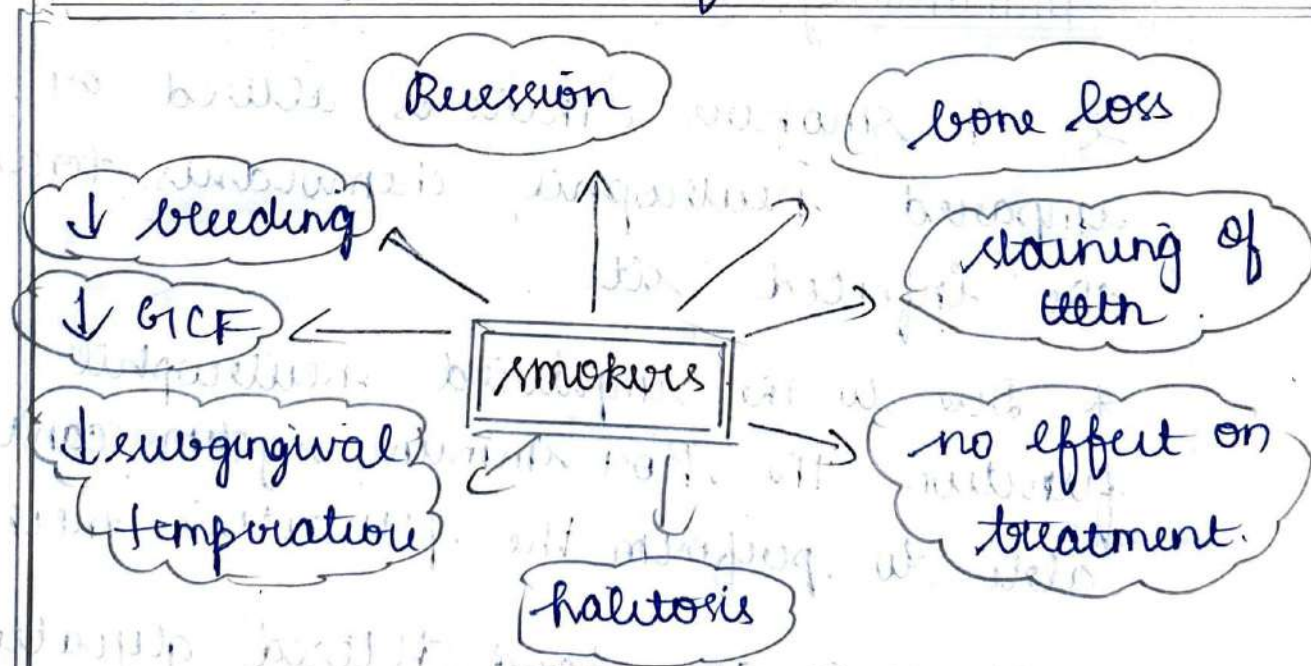
with smoking.

Microbiological :-

* The bacterial accumulation will be increased in smokers.

* *Tannerella forsythia*, *Porphyromonas gingivalis*, *Camphylobacter rectus* are predominantly present in the oral cavity.

* The bacteria may show resistant to the treatment for the periodontitis.



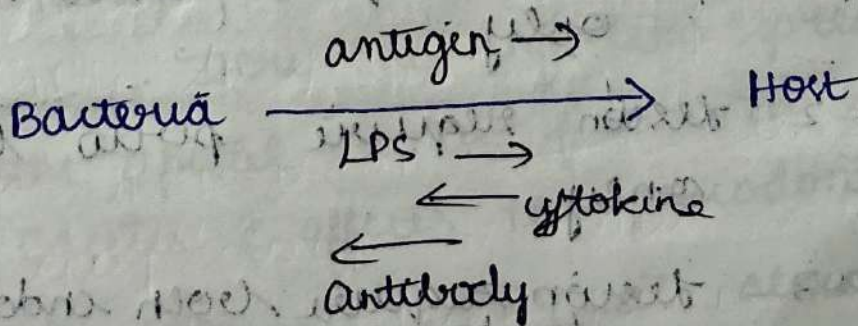
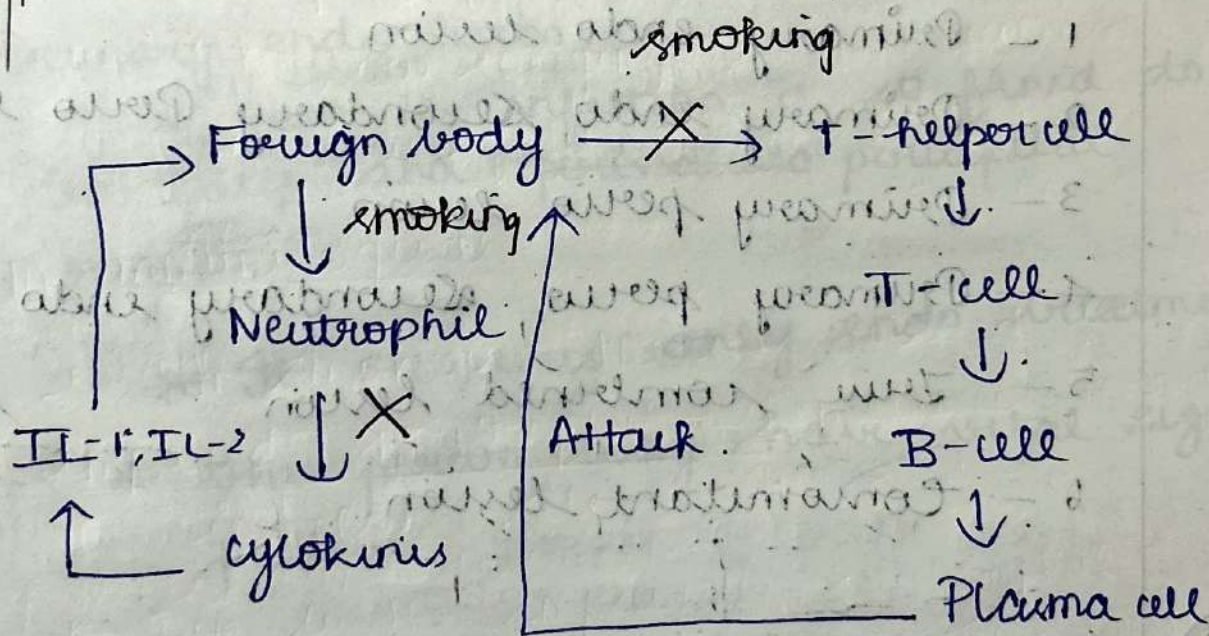
no clinical signs.

Physiologically →

microbiologically → ↑ bacterial accumulation

(*T. forsythia*, *C. Rectus*, *P. gingivalis*) ↑

Immunologically → altered neutrophil chemotaxis
↓ host Response.



SECTION - B

3.

ENDO - PERIO LESIONS :

Endo-perio lesions are characterised by appearance of one disease due to the another disease.

Classification

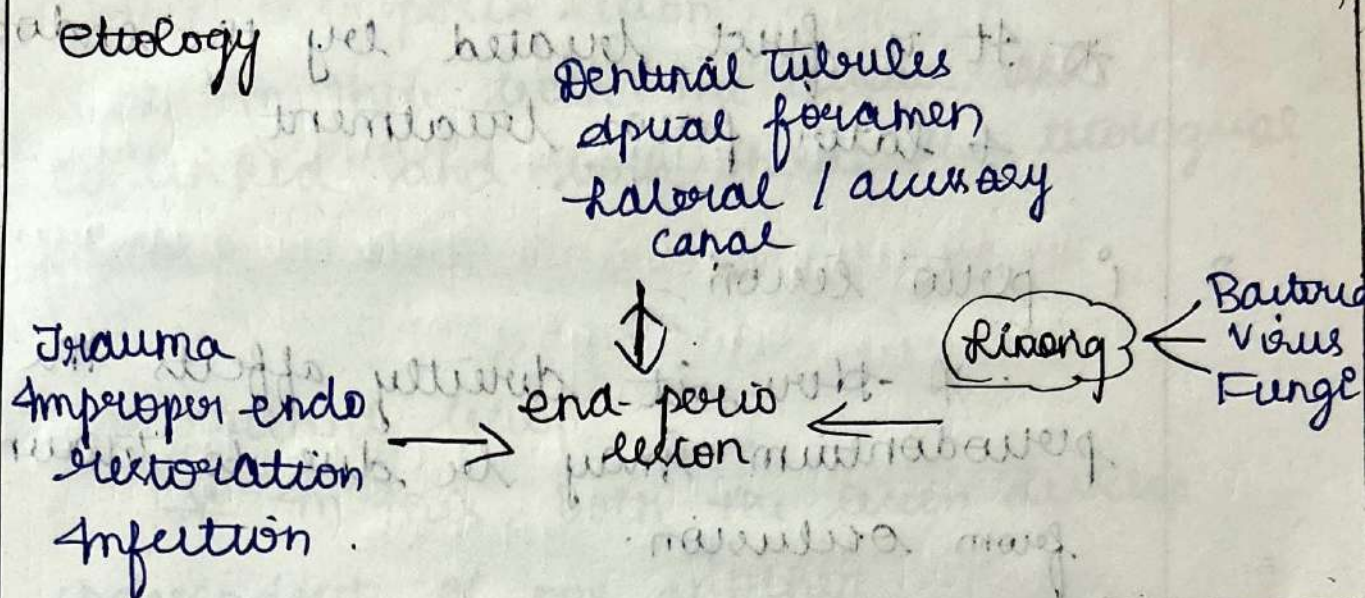
① According to Simon's:

- 1 - Primary endo lesion
- 2 - Primary endo secondary Perio lesion
- 3 - Primary perio lesion
- 4 - Primary perio secondary endo lesion
- 5 - True combined lesion
- 6 - Concomitant lesion

②

- Type 1 - Lesion Require endo treatment only
- Type 2 lesion require perio treatment only
- Type 3 - lesion require both endo + perio treatment.

Etiology



⇒ Primary endo lesion:-

* Here the infection is confined to the pulp and periradicular periapical region.

* It requires only endo treatment.

* The person may have vital signs positive.

⇒ Primary endo 2° perio lesion

Here the infection spread through the apical canal from the dental caries & affects the periodontium.

(eg) . Chronic periapical abscess.

* It is first treated by the endodontics
+ later periap. treatment

1^o ponto lecion: -

* Here, it directly affects the periodontium may be due to trauma from occlusion.

* (eg) Apical periodontitis.

* It requires the period treatment.
(e) occlusion correction of the opposite teeth.

4) 1º perito 2º sendo lesionado

* The infection in the periodontium passes through the apical foramen into the pulp chamber.

* It requires endo treatment first followed by perio treatment.

5) True endo perio lesion:-
* In these both the disease are co-linked and both had the etiological factor.

6) Concomitant lesion:
* In this, both the lesion develop independent of one another.
* The treatment depends on the severity of the disease.

4) CLASSIFICATION OF CEMENTUM:

Cementum is a well mineralized avascular part of the root that covers the root portion.

Classification

- * Avascular, Acellular cementum.
- * ☒ 1
- * ☒ 2
- * ☒ 3

5.

FREE GINGIVAL GRAFT

Free gingival graft is one of the mucogingival (plastic surgery + esthetic surgery).

* It is done to increase the width of the attached gingiva.

* Attached gingiva is essential to maintain proper oral hygiene & brushing the teeth.

* minimum of 1mm should be there to maintain healthy gingiva.

Free gingival graft is one of the apically positioned graft to increase width of the attached gingiva & eliminate the pocket lining.

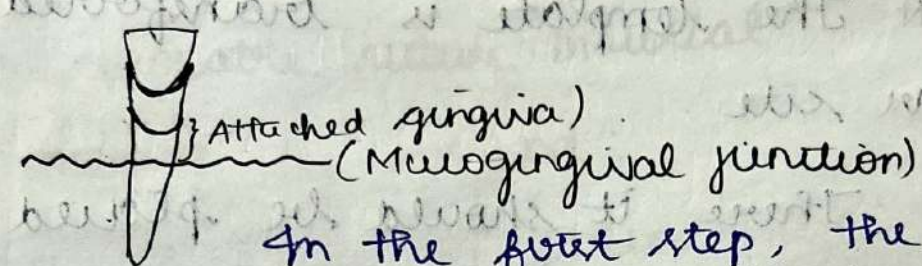
Steps in free gingival graft

- ① Preparing the recipient site
- ② Harvesting the graft

③ Transfer the graft.

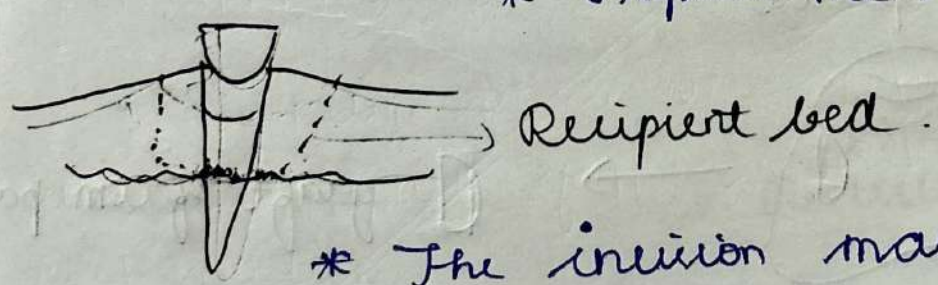
④ Managing the wound.

⇒ Preparing the recipient site



In the first step, the sulcular incision should be given to the adequate level (below the mucogingival junction).

* Prepare the recipient bed.



* The incision may be only the horizontal incision, with partial thickness flap.

* Or it may be two vertical incision with an horizontal incision

② Draining the graft

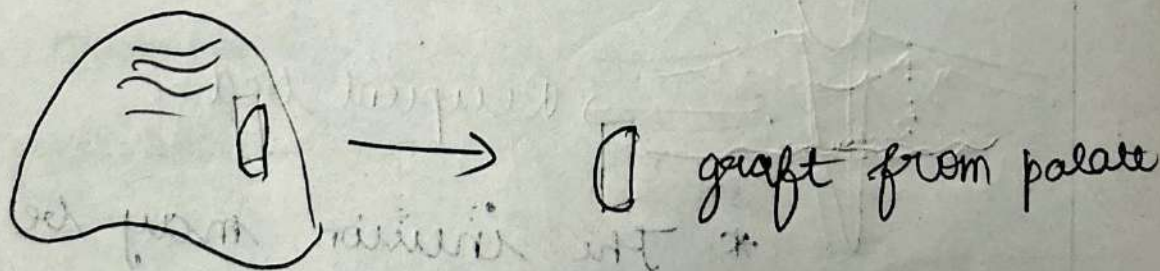
* After giving incision, the aluminium foil is placed to measure the size & shape of the recipient site.

* The template is transferred to the donor site.

There it should be placed & give an shallow incision.

After take the template & give an partial thickness flap.

In palate *



For example: If the graft donor site is taken from palate, it should be taken from lateral to the anterior angle & it should be relieved from the anterior area to avoid secondary

healing.

(25)

The graft is reshaped by thinning the graft.

③ Transfer the graft

* The graft is taken to the recipient place, & gently press the graft to fit in the area.

* Suture it with the resorbable / nonresorbable suture material

④ Managing the wound:

* Place the periodontal pack against the donor site or Platelet rich fibrin clot.

* Recall the patient to remove the suture after 2-3 weeks.

6) Classification of Gingival Recession:

Recession is given by "exposure of the bone due to the recession of the gingiva"

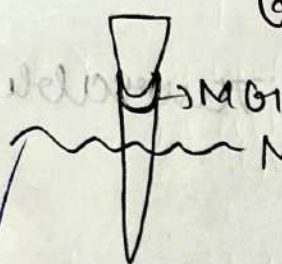

Dr. Linna

According to Miller

Class 4 : Mucogingival Junction Marginal

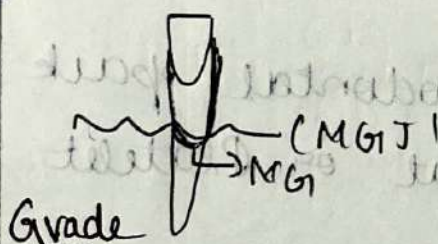
Grade 1:

gum does not extend to beyond the mucogingival junction. There is no bone or soft tissue loss.



Grade ② . Marginal gingiva extends to beyond the mucogingival junction.

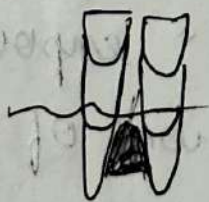
There is no bone or soft tissue loss.



Grade

③ Marginal gingiva extends to beyond the mucogingival junction.

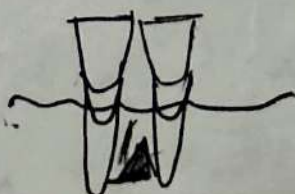
There is a bone or soft tissue loss with mild malocclusion of teeth.



Grade

④ Marginal gingiva extends to beyond the mucogingival junction.

There is a severe bone loss with malocclusion.



Treatment for Recession according to the Grade

- * Grade I & Grade II recession can be treated with scaling & Root planning.
- * Grade III & Grade IV recession are treated either with hemisection or pedicle or root coverage procedure.

Root coverage procedure includes,

- * Coronally advanced flap
- * Free gingival graft
- * Guided tissue Regeneration
- * Lateral (Pedicle) graft

Radius of action :-

* Radius of action is proposed as, it is the effectiveness of about 1.5-2.5mm of bacterial plaque can induce the bone loss.

* Beyond this (1.5-2.5mm) there is no effect.

g
for dmm

* Under bone loss may occur with
auton as an protective mechanism

* It induces the bone progenitor
to produce the osteoclast which can
the bone resorption

Bacteria → Induce the
host Response



Production of
Cytokines



IL-1 α , IL-1 β



Induce bone
morphogen
protein



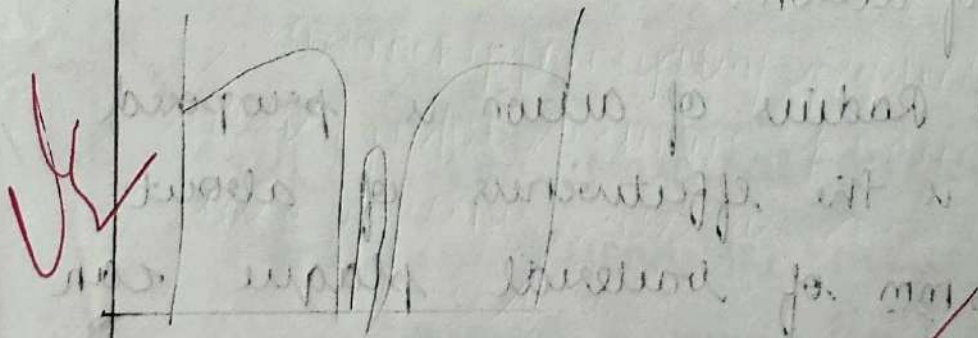
osteoclast
induction



Bone Resorption

about (1.5-2-5mm)

mechanism of
Radius of
action



fibers which is the ~~axonal~~ mid the
the roots.

Cellular Interspersed Fiber Cementum

* It consists of interspersed fibers
composed of cementoblast cells.

7) Periovichip:

Periochip is a chlorhexidine based
fiber which is a type of local drug delivery
agent.

It is available in Perioplus AB &
Periochol CG

It submergely releases the chlorhexidine
in the desired pocket.

20% chlorhexidine will be present
in the form.

It is placed in the periodontal
pocket ($< 5\text{mm}$) but, it is contra-indicated
in the multiple tooth in the same
quadrant.

Periochip AB also produces tetracycline
releasing fiber which produces 2mg of
tetracycline.

DEPT OF PERIODONTICS, MINDS
FINAL YEAR - IRREGULAR BATCH
FIRST INTERNAL EXAM (03rd September 2024)
MCQS (1 MARK EACH) - DURATION 30 MINS

Priyadharsini
15

1. Trauma from occlusion refers to

- ☒ a) Occlusion which causes trauma
- ☐ b) Abnormality of periodontium
- ☐ c) Changes in periodontium due to occlusal force
- ☐ d) Inflammation of periodontium

2. Principle fibres of periodontal ligament are comprised of-

- ☒ a) type I collagen
- ☐ b) type II
- ☐ c) type III
- ☐ d) type IV

3. Main function of horizontal fibres of periodontal ligament

- ☐ a) Prevent extrusion
- ☐ b) Prevent rotation
- ☐ c) Maintain the mesiodistal width
- ☒ d) All of the above

4. Brushing technique advocated after periodontal surgery

- ☐ a) Bass technique
- ☐ b) Stillmans technique
- ☒ c) Charters technique
- ☐ d) Fones technique

5. End to end joint in CEJ is seen in

- ☐ a) 5-10%
- ☒ b) 30%
- ☐ c) 60-65%
- ☐ d) 40%

6. The pattern of destruction of underlying bone in suprabony pocket is

- ☐ a) Vertical
- ☒ b) Horizontal
- ☐ c) Oblique
- ☐ d) Angular

7. Periodontal fibres reconstructed even after destruction of alveolar bone are

- ☐ a) alveolar crest
- ☐ b) horizontal
- ☒ c) transseptal
- ☐ d) oblique

8. Immunoglobulin present in saliva is

- ☒ a) IgG
- ☐ b) IgM
- ☐ c) IgA
- ☐ d) IgE

9. Major route of entry of leucocytes in oral cavity is through

- ☐ a) saliva
- ☐ b) sulcus
- ☐ c) tongue
- ☒ d) plaque

10. Infrabony pocket most commonly occur on

- ☐ a) Interproximal surface
- ☐ b) Facial surface
- ☐ c) Lingual surface
- ☒ d) All of the above

11. Major salivary enzyme is

- ☐ a) lysosyme
- ☒ b) lactoperoxidase
- ☐ c) Amylase
- ☐ d) Lipase

12. Acute TFO is caused due to

- ☐ a) Abnormal occlusal force
- ☒ b) Abrupt occlusal impact
- ☐ c) Normal occlusal force to tooth with inadequate support
- ☒ d) Excessive occlusal force to tooth with adequate support

13. Earliest sign of gingival inflammation is

- a) increase in GCF b) Gingival bleeding c) both a and b d) none

14. Disease not affecting gingival pigmentation is

- a) Addison's disease b) Peutz-Jeghers syndrome c) Albright syndrome d) Sjogren syndrome

15. Other name of Spiral pocket is

- a) compound b) complex c) simple d) none

16. Relative volume of PMN to lose tissue cohesiveness in JE is

- a) 40% and more b) 50 c) 60 d) 25

17. Number of Zones seen in the tooth wall in periodontal pocket are

- a) 3 b) 4 c) 5 d) 6

18. Average width of PDL is

- a) 0.1mm b) 0.2mm c) 0.3mm d) 0.4mm

19. Clinical indicators of occlusal trauma include all, except

- a) Periodontal pocket
b) Tooth migration
c) Tenderness on percussion
d) Increased width of PDL

20. Cells of gingival epithelium that plays a role in immune reaction

- a) Langerhans cells b) Merkel cells c) Melanocytes d) Corneocytes

21. Principal cell type of gingival epithelium is

- a) Melanocyte b) Keratinocyte c) Fibroblast d) Langerhans cells

22. Lamina dura is formed of which bone

- a) Bundle bone b) Cancellous bone c) Woven bone d) Lamellar bone

23. Gingival epithelium is attached to lamina propria by

- a) Sharpeys fibres b) basement membrane c) Hemidesmosomes d) Reticular layer

24. A universal curette is called so

- a. Has only 1 cutting edge
b. Is used world-wide
c. Can be used on all surfaces on teeth
d. Is most accepted by periodontists

25. Inorganic content of cementum is

- a) 45-55% b) 55-65% c) 65-75% d) 75-85%

MAHE INSTITUTE OF DENTAL SCIENCES & HOSPITAL
CHALAKKARA, MAHE
U. T. OF PUDUCHERRY - PIN 673 333

INTERNAL ASSESSMENT BOOK

SUBJECT: *Periodontics*

Tick Questions Attempted :

Q₁ ☒

Q₂ ☒

Q₃ ☒

Q₄ ☒

Q₅ ☐

Q₆ ☒

Q₇ ☒

Q₈ ☒

Q₁ 5 10

Q₅ — 5

Q₂ 7 10

Q₆ 3 5

Q₃ 3 5

Q₇ 14 5

Q₄ 1/2 5

Q₈ 24 5

No. of Additional

TOTAL

23 45

Priya Dharshini

Sheets used.

Total in Words *Twenty three*
Evaluated by: *Dr. Nandini*

Name of the candidate: *C. Priya Dharshini*
Reg. No: 19DS0261

Signature *Priya Dharshini*
Date: 3/9/2024

Sane
31/9/24
Signature of Invigilator

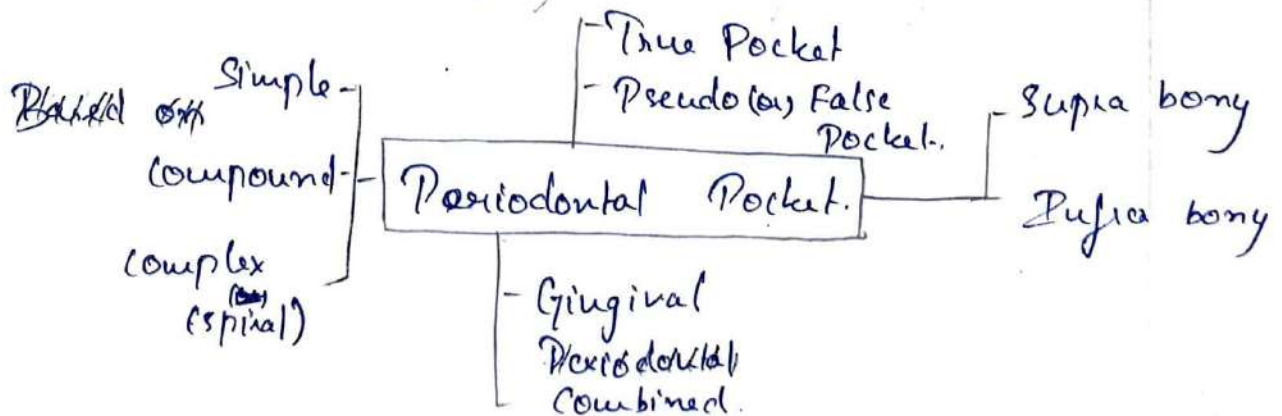
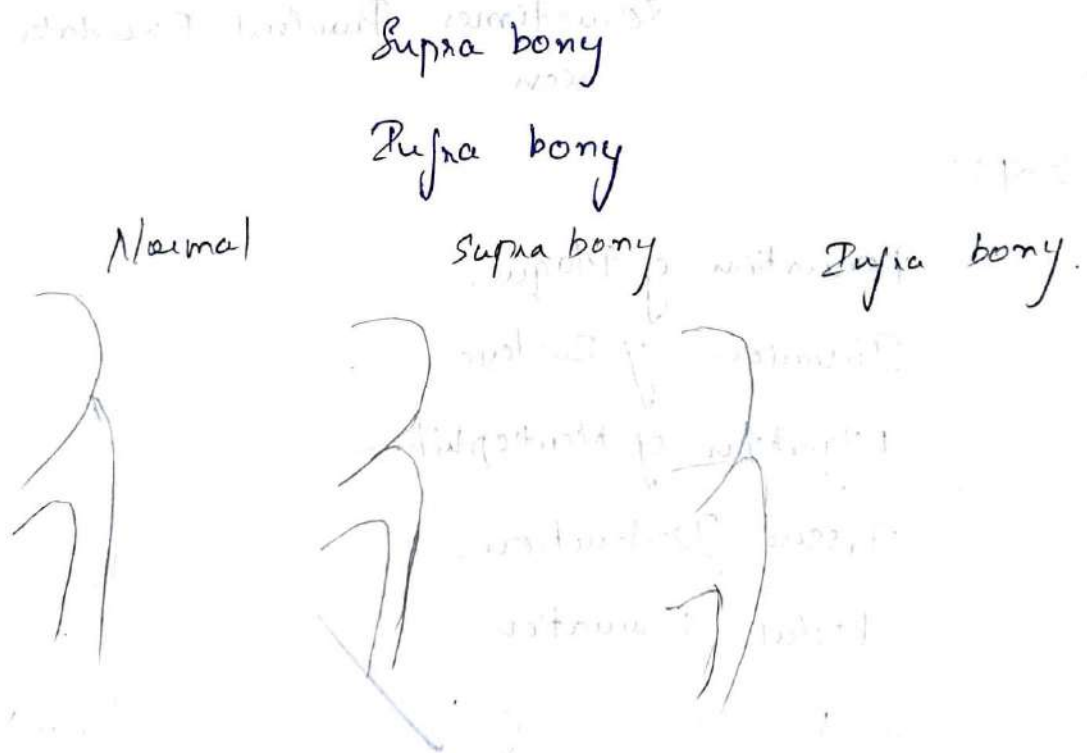
Section-A

1. Periodontal Pocket:

Periodontal Pocket is the pathological deepening of gingival sulcus.

Classification:

Based on bone location.



Pathogenesis of Pocket Formation.

Content of Pocket:

GCF

Saliva mucin

Food debris

enzymes, leucocytes

Bacterial invasion.

Sometimes Purulent Exudates are also seen.

Steps:

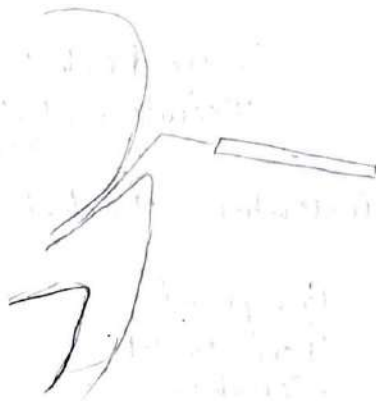
Formation of Plaque.

Invasion of Bacteria.

Migration of Neutrophils.

Tissue Destruction.

Pocket Formation.



Probing depth.

Plaque Formation on the Junctional epithelium

Inflammation is seen.

Proliferation of Spirochaetes or gram negative bacterial

collagenous Fibres.

Destruction of collagen fibre by metalloproteinase.

Destruction by ligament.

Loss of collagen

Proliferation of Macrophages. phagocytes.

Loss of Attachment in the Junctional epithelium.

Increase in Neutrophils.

Destruction of Tissue of the tooth

Increase in gram negative bacteria

Increase in Number of Neutrophils.

Destruction of Epithelium / Emigration of Neutrophils.

Functional epithelium

Replaced by the



Pocket

Formation

Emigration of Neutrophils.

Tissue Destruction

Tooth Resorption.

Pocket Formation.

Treatment :

Supra bony.

Anterior

Posterior.

Scaling and Root Planning

Scaling & Root Planning

Revaluation

Revaluation

Curettage

Flap surgery

Flap surgery

Supra bony

Scaling

Revaluation

Flap surgery.

Pseudo Pocket

Scaling

Revaluation

True Pocket

Scaling

Revaluation

Flap Surgery

2. Periodontal Ligament :

Periodontal ligament is a avascular mesenchymal tissue that connect the root of the tooth ^{to} of the alveolar bone.

Function of Periodontal ligament :

Physical Function.

Protective Function

Supportive Function

Sensory Function

Attrition Function

Hemostatic Function.

Physical Function:

It helps to withstand the occlusal force of the tooth.

Protective Function:

It protect the tooth during masticatory force by ~~Phosphorus~~ Transferring the

PDL Fibres:

Trans-septal group

Alveolar Crest fibres

Horizontal Fibres

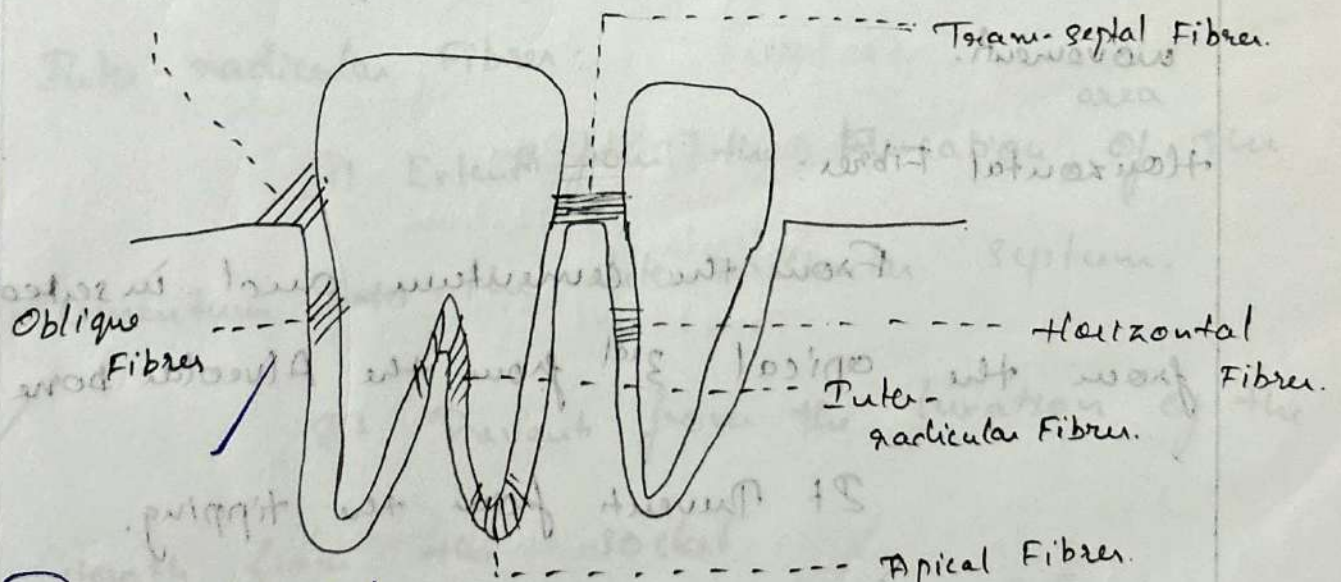
Oblique Fibres

Apical Fibres

Inter-radicular Fibres

Trans-septal Fibres:

It Extends from the Cervical to the Alveolar-crest group



Trans-septal Fibres:

It Extends from the Cervical margin of the one tooth and inserted to the cementum of the adjacent tooth.

It Prevents from the totally resorption. after
Periodontal surgery. It Prevents from destruction
after Periodontal surgery.

It bring back the tooth to the
normal state after the orthodontic treatment

Alveolar crest of fibres:

It Extent from the cementum to the
Alveolar bone.

It Prevent the tooth from the lateral
movement.

Horizontal Fibres:

From the cementum and inserted in
from the apical 3^{rd} from the Alveolar bone.

It Prevent from the tipping.

Oblique Fibres:

It Extent from the cementum and
inserted to the $1/3^{rd}$ of apical portion of the

Alveolar bone.

It Prevent the tooth from mesio-distal movement.

Apical Fibres:

Apical Portion of the

It Extends from the Cementum to the fender of the bone.

It holds tight the tooth.

It Prevents from luxation.

Inter-radicular Fibres:

It Extends from the Plication area of the Cementum to the inter-radicular septum.

It Prevents from the luxation of the tooth from the socket.

Section - B.

3. Junctional Epithelium:

Gingiva is the Part of the oral mucosa that surrounds the jaw of the Alveolar bone and neck of the tooth.

Macroscopic Features:

Marginal gingiva.

Attached gingiva.

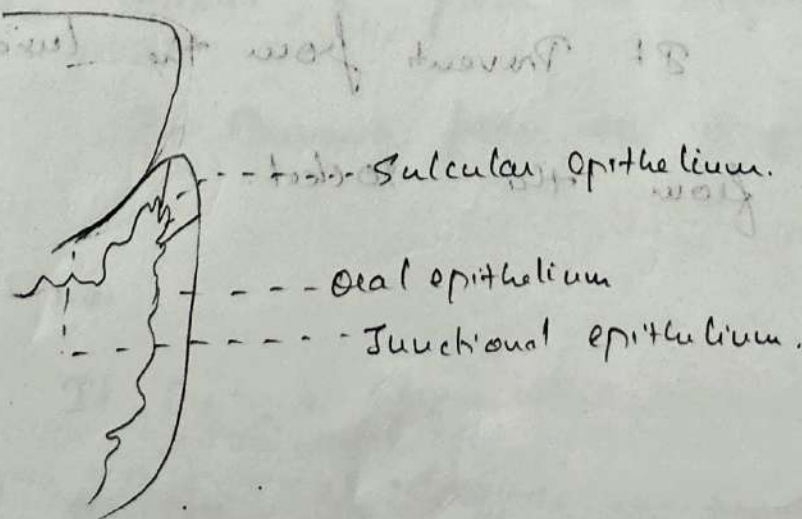
Peridontal gingiva.

Microscopic Features:

Oral Epithelium

Sulcular Epithelium

Junctional Epithelium



Functional epithelium:

It is thin, non-keratinized. Squamous epithelium without rete pegs.

It continues along the surface of the enamel.

It is in contact with both hard tissue and soft tissue.

Functional Epithelium of 2 types.

Primary JE

Secondary JE

Primary JE :

It is formed by the ameloblastoma.

Secondary JE :

It is formed after surgery from the

basal cells

Formation of JE :

Enamel is at the occlusal surface.

Ameloblastoma is attached.

Ameloblastoma changes into cuticle.

These cuticle attached to the marginal surface of the enamel.

Reduced Enamel Epithelium Formed.

Eruption of tooth.

Cuticle + REE

Junctional epithelium is formed.

concept of JE:

Gottlieb concept:

When the Junctional epithelium is attached to the tooth surface.

Wachung concept:

When JE slightly detach but not has gap between the tooth and the Junctional epithelium.

Schroeder's concept:

When the basal layer along is connected the tooth.

JE into 3 types:



overlapping

Edge to Edge

gap.

when TE overlap

the enamel

60-65%

overlapping

when TE

and enamel

meet.

30-35%

Edge to Edge

when there is

gap. between

TE & enamel.

gap. 5-10%

4. Modified Ban technique:

The brush is placed at 45° angle and placed in the marginal sulcus and interproximal area and move along the surface of the tooth and also vibratory movement in ban technique is also given (back and forth movement is given as in ban technique)

In occlusal stroke and vibratory movement is given.

It is for all Patient.

Patient with high Plaque formation.

Advantages:

It is to remove the Plaque from the interproximal area.

It is the efficient technique.

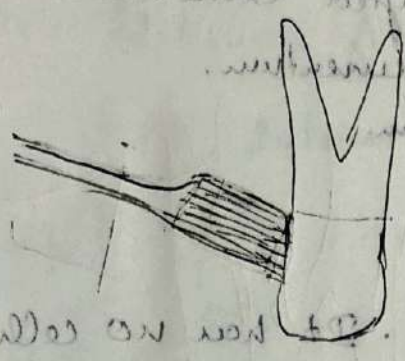
It remove the Plaque completely.

Disadvantage:

It consumes time.

Each tooth to be cleaned

1/2



(45° angle)

6. Cementum - Classification

calcified

Cementum is a vascular and highly cellular tissue that surrounds the tooth to the alveolar bone.

Classification:

> Based on location.

- Coronal ✓
- Radicular ✓

> Based on cellularity

- Cellular ✓
- Acellular ✓
- Intermediate ✓

> Based on Presence or absence of fibres.

- Acellular A-fibrillar ^{Fibre} Cementum ✓
- Acellular I-fibrillar ^{Fibre} Cementum ✓
- Acellular E-fibrillar ^{Fibre} Cementum ✓

- Cellular mixed stratified Cementum.
- cellular intrinsic ^{Fibre} Cementum.
- Intermediate Cementum.

⇒ Acellular Cementum:

It is a Primary. It has no cells. because it is acellular.

⇒ Cellular Cementum:

It is secondary fibres. It is formed first.

⇒ Intermediate Cementum:

It is seen in Pre-cervical to the apical $\frac{1}{3}^{th}$ area. It arises from the remnant of Hertwig's.

⇒ Acellular Afibrillar cementum.

Only mineralized fibres seen. There is no collagen fibres or Cementocytes.

It is the product of cementoblast cells.

⇒ Acellular Intrinsic fibres:

Cementoblast cells are seen. There is no cementocytes. cells. This is first formed fibres.

⇒ Acellular Extrinsic fibres:

Sharp fibres are seen.

⇒ Cellular mixed stratified Fibres:

Both intrinsic and Extrinsic are seen.

Cellular Pulpinec fibres:

Only Pulpinec are seen. No Extrinsic fibres are seen.

7. Stages of TFO

When the Abnormal force or adaptive force act on tooth, tissue injury results. This result in tissue injury is known as Trauma from occlusion.

Primary TFO [Acute
Secondary] [Chronic

Stages of TFO:

Stage I → Injury

Stage II → Repair

Stage III

→ ~~Repair~~

Adaptation
Remodelling

Stage I - Injury:

When the normal masticatory or occlusal force is given, the force is transferred to the all tooth. When it cannot withstand the occlusal force, tissue injury takes place.

Repair :

Repair is the reparative of the tooth.
When the force is applied, the force are applied to all tooth to withstand the ~~set~~ force.
The new bony trabeculae is formed in this stage.

Remodelling:

During this stage, it prevents from injury of the tooth.

Widening of PDL is seen as funnel-shaped in radiograph.

In this stage, stress bone are less effective.

8. Gingival Fibres:

- ⇒ Principle Fibres:
- ⇒ Secondary Fibres:

Principle Fibres:

- Dento-gingival Fibres.
- Alveolo-gingival Fibres.
- Dento-Parosteal Fibres.
- Circular Fibres.
- Trans-septal or Septal Fibres.

Secondary Fibres:

- Semi circular Fibres
- Inter-circular Fibres
- Inter-Papillary Fibres
- Trans-Periapical Fibres
- Periapical Fibres

Fibres	Extent	Function.
Dento-gingival Fibres.	Cervical portion of tooth	Marginal gingiva.
Alveolo-gingival Fibres	Alveolar bone	Marginal gingiva.
Dento-Periapical fibre	Cervical portion of tooth.	Periapical.
Circular fibres	around the tooth	Cementum.

DEPT OF PERIODONTICS MINDS
FINAL YEAR IRREGULAR BATCH
SECOND INTERNAL EXAM (December 2024)
MCQS (1 MARK EACH) - DURATION 30 MINS

1. Major compound responsible for intraoral halitosis is:

- a. Methyl mercaptan b. Hydrogen sulphide
 c. Dimethyl sulphide d. Trimethylamine

2. Which of the following fiber groups can be observed even in case of extreme periodontal bone loss?

- a) Circular gingival fibers b. Gingivo-dental fibers
 c) Transseptal fibers d. Alveolar crest fibers

3. Chronic Periodontitis is considered generalized Periodontitis, when the number of sites in the mouth with attachment loss and bone loss are:

- a) > 30% b. > 40%
 c) > 50% d. > 60%

4. Which component of a true Perio-Endo combined lesion is most difficult to treat?

- a) Periodontal lesion b. Endodontic lesion
 c) Both Perio. & Endo. Lesions d. None of the above

5. Gold standard for diagnosis of halitosis is:

- a. Gas chromatography b. Chemical sensor
 c. BANA test d. Organoleptic rating

6. Bony exostoses of the alveolar bone are more commonly seen on which surface?

- a) Buccal b. Lingual
 c) Palatal d. Proximal

7. A periodontal flap using only horizontal incisions is called:

- a) Horizontal flap b. Unrepositioned flap
 c) Envelope flap d. Postal flap

8. The average diameter of bristles used in an interdental brush is:

- a) 0.075 mm b. 0.15 mm
 c) 0.25 mm d. 0.50 mm

9. The recommended dose of Doxycycline in the form of low dose Tetracyclines for host modulation in periodontal disease is:

- a) 10 mg, once a day b. 10 mg, thrice a day
 c) 20 mg, twice a day d. 20 mg, thrice a day

10. Chronic Periodontitis is considered severe, when the attachment loss is:

- a) 3mm or more b. 4mm or more
 c) 5mm or more d. 6mm or more

11. The method suited for children are:

- a) bass method b) charter method
 c) fones method d) stillman method

12. The initial incision in case of modified Widman flap is:

- a) A straight non-scalloped incision
 b) To the crest of alveolar bone
 c) To a point apical to the alveolar crest
 d) Crevicular incision

Priyadharsini

13. The major complication to treatment of Perio- Endo combined lesions is :

- a) Pulpal pathology
- b) Lateral canals
- c) Contaminated root surface due to periodontitis.
- d) Periapical granuloma

14. Several systemic diseases produce volatile substances detectable on the breath. Which of the following disorders is most likely to produce a fruity odor of acetone on the breath?

- a) Liver failure
- b) Diabetic ketoacidosis
- c) Renal failure
- d) Heart failure

15. Which prostaglandin is considered to be the most potent one to stimulate bone resorption?

- a) PGE1
- b) PGE2
- c) PGF1
- d) PGF2

16. The major purpose of modified Widman flap procedure is:

- a) To facilitate periodontal instrumentation
- b) To reduce pocket depth
- c) To remove pocket wall
- d) All of the above

17. Microorganisms associated with attachment loss and bone loss in chronic Periodontitis belong to which of the following complex?

- a) Green complex
- b) Yellow complex
- c) Orange complex
- d) Red complex

18. The major purpose of internal bevel incision in conventional flap techniques is:

- a) Removal of pocket lining
- b) Removal of pocket wall
- c) To gain access to the underlying bony defects
- d) To act as releasing incision

19. Morning bad breath is a type of:

- a) Physiological halitosis
- b) Pathological halitosis
- c) Pseudo halitosis
- d) Intraoral halitosis

20. In periodontology the most sensitive diagnostic test for the detection of periodontitis is:

- a) Measurement of pocket depth.
- b) Measurement of attachment loss
- c) Measurement of distance between alveolar crest and CEJ on bitewing radiograph
- d) Computer Assisted Densitometric Image Analysis. (CADIA)

21. In a true Perio-Endo combined lesion, which component should preferably be treated first?

- a) Periodontal lesion
- b) Endodontic lesion
- c) Both Perio. & Endo. lesions simultaneously
- d) Any of the above

22. The term Radius of action was coined by

- a) Glickman
- b) Tarnow
- c) Prichard
- d) Page and Schroder

23. The Term 'Hemiseptum' in relation with periodontal bone defects is used to represent

- a) Half wall vertical defect
- b) One wall vertical defect
- c) Two wall vertical defect
- d) Three wall vertical defect

24. Which of the following is a preparation of Chlorhexidine used as local drug delivery system in periodontal pockets?

- a) Periochip
- b) Periostat
- c) Periocline
- d) Peridex

25. The most preferred dental floss for plaque removal from fixed partial dentures or orthodontic appliances is:

- a) Waxed floss
- b) Unwaxed floss
- c) Knitting yarn
- d) Super floss

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INTERNAL ASSESSMENT BOOK

SUBJECT: Periodontics

Tick Questions Attempted:

Q₁ ☒

Q₂ ☒

Q₃ ☒

Q₄ ☒

Q₅ ☐

Q₆ ☒

Q₇ ☒

Q₈ ☒

Q₁ 3 1/2 10

Q₅ 5

Q₂ 3 10

Q₆ 3 5

Q₃ 1 5

Q₇ 1 1/2 5

Q₄ 2 5

Q₈ 2 1/2 5

No. of Additional

TOTAL

15 1/2 45

Sheets used.

Total in Words

Evaluated by:

Do Aithubham

Name of the candidate: C. Prayatharashini

Reg. No: 17DS0261

Signature Prayatharashini

Date: 4/12/24

Signature of Invigilator



Section A.

1. Tooth brush:

Tooth brush removes plaque, food debris, etc.

length 12cm long

width 2-3 cm

tufts 5-12

bristles 40-50

⇒ Mechanical Plaque control
Tooth brush.

interdental aid. (Dental Floss)

⇒ chemical Plaque control.

Part.

~~Body~~ Handle.

Head.

Handle:

To hold the brush tightly, or grasp the brush.

Head:

It contains tufts which has bristles. The head

Part clean our teeth

Soft - 0.2 mm

Medium - 0.3 mm

Hard - 0.4 mm

Brushing technique:

Vibratory - Charle's Method, Bass technique, Modified bass technique.

Rotatory - Charle's Method

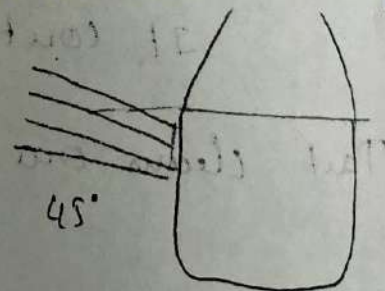
Circular - Fones Method.

Horizontal - Modified Stillman Method

Vertical - Scrub method

Charle's Method:

The toothbrush is placed at 45° angulation in the interproximal area. and gives rotatory and vibratory force, which further goes to occlusal surface as rotatory force.



Advantage:

Easy method.

Mostly Plaque removed

Disadvantage:

Interdental Plaque not removed.

Ban Method:

The toothbrush is kept at 45° angulation and gives back and forth motion. The brush is placed at the interproximal area.

Advantage:

It is widely used.

It is used after Periodontal surgery.

Disadvantage:

It is difficult to learn.

Time consuming technique.

Modified Ban Technique:

The toothbrush is placed at 45° angulation. It is as same as Ban technique along with the backward motion.

Advantage:

It is recommended technique.

It is used after immediate Periodontal surgery.

Fixed Orthodontic treatment.

Disadvantage:

Time-consuming technique

Modified Stillman technique:

The toothbrush is placed at 45° angulation and moved mesially and distally.

Advantage:

It is used in fixed orthodontic treatment.

Disadvantages:

Plaque accumulation is still present

Scrub Method:

The toothbrush is kept at 90° angulation.

Fones Method:

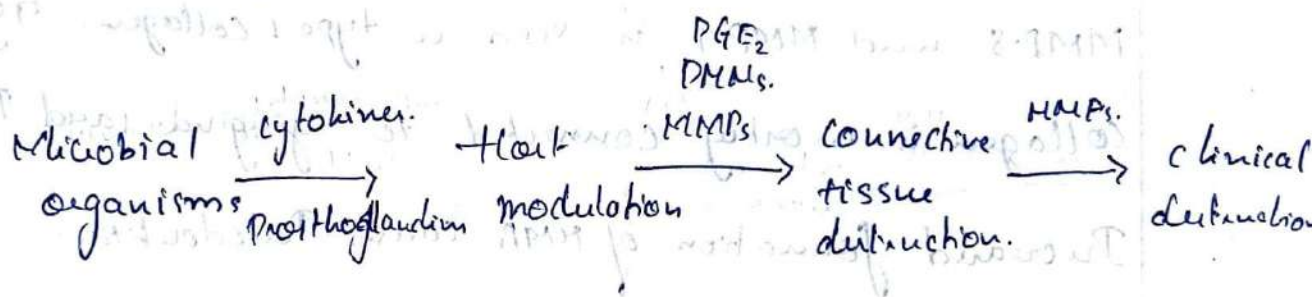
The toothbrush is kept at 90° angulation and circular movement is given.

Advantages:

It is widely used in children.

2. Host Modulation:

Host modulation is a concept of destruction of tissue and stability or even regenerate of Periodontium by degeneration or down-regulating the host response by the up-regulating the tissue response.



Classification:

Locally

- > NSAIDs [Non-steroidal Anti-inflammatory drugs]
- > Growth hormone
- > Enamel Matrix protein.

Systemic.

- > NSAIDs.
- > Bisphosphonates.
- > SDD [Sub-Antimicrobial dose doxycycline].

Sub-Antimicrobial dose doxycycline:

It is administered both systemic and locally
But widely systemic Administration.

20gamm of SDD is given for the Periodontal Problem along with SRP, SDD adjunct is given for better reduction in bone destruction.

MMPs which causes increased destruction of alveolar bone. SDD inhibits the MMPs. and inhibits MMP-8 and MMP-9 is seen in type I collagen. Type I collagen is mostly connected to gingiva and Periodontium. Increased formation of MMP causes Periodontitis.

The use of tetracycline in SDD gives reduction of bone destruction. The recommended dose of Doxycycline in form of low tetracycline for host modulation in Periodontal disease is 20mg, twice a day.

Doxycycline also inhibits osteoclast formation.

Use of tetracycline after SRP is a gold standard. The data intake of SDD in rheumatoid arthritis, Diabetic Mellitus and skin disease Patient, seems to have less low Periodontal Problem. Doxycycline in Diabetic Mellitus Patient maintain glycemic level.

3 The effect of SDD after SRP shows a regenerative by the formation of collagen, osteoblast and bone formation. There is CAL of 0.5mm after SRP but with SDD CAL is gained by 0.3mm. Section - B.

4. VSCs.

Volatile sulphide compound.

volatile sulphide compound is formed by the

2 Prokolytic degeneration of microorganism in saliva, interdental Plaque, blood.

VSCs contain: Methyl Mercaptan, Hydrogen sulphide, Dimethyl sulphide.

Diagnosis:

Portable volatile sulphide (Halimeter): .

It shows any volatile causes organism is present like methyl mercaptan, hydrogen sulphide.

Gas chromatograph:

Portable volatile sulphide does not differentiate the organism but Gas chromatograph differentiate the organism.

Treatment:

Mechanical Method: toothbrush, Dental floss.

Chemical Method: Mouthwash. With chlorhexidine.

Oxidizing by Hydrogen Peroxide.

Masking: Chewing gums.

6. Modified Widman flap:

Flap is defined as section of gingiva or mucosa surgically separated from the underlying supporting tissue which provides visibility and access to the bone and root surface.

Modified Widman flap:

It is a scalloped, mucoperiosteal

Procedure with internal bevel resection.

Indication:

and in exposure of bone and root surface.

Periodontal Pocket depth are seen.

Diffuse bony Pocket.

deep Periodontal Pocket.

Contraindication:

Very deep Pockets.

Medically compromised Patient.

Patient with systemic disease.

Classification of flap.

Based on Exposure:

Full thickness Flap.

Partial thickness Flap.

Based on papilla exposure displacement.

Undisplaced.

Appically displaced Flap.

Modified Widman Flap.

Undisplaced flap.

Papillary Preservation Flap.

Based on displacement:

Non-displaced Flap.

Displaced Flap.

Modified Widman Flap. Procedure:

Internal bevel incision.

Reflection of flap.

Crevicular incision.

Interdental incision

Removal of tissue tags and granulation tissue

Adaptation of flap.

Suture with simple interrupted suturing technique.

Internal Bevel incision:

2-3 mm from the margin, internal bevel

incision is given.

Reflection of flap:

Flap is reflected by the Periosteal Elevator.

Crevicular incision:

3 mm below the Pocket, Crevicular incision

given.

Interdental incision:

If needed, interdental incision at proximal

side is given.

Removal of tags:

Tissue tags and granulation tissue to be removed by tissue scaler instruments.

Adaptation of flap:

Flap to be reattached in a healthy bone.

Suture:

Simple interrupted suturing technique.

2
3
To prevent soft tissue damage, complete soft tissue is involved.

To stop the bleeding, Full thickness of muco-periosteal is raised.

The base of the flap to be wide.

Incision to be made by sharp scalpel.

7. Chronic Periodontitis:

Chronic Periodontitis is a infection of the inflammation of the supporting teeth, underlying loss of attachment and bone loss.

Based on distribution.

- Localized
- Generalized.

Based on loss of attachment.

- Mild
- Moderate
- Severe.

It is seen at the age of 30 to 35. both male and female are commonly affected.

Mostly generalized with deep in localized area

Risk Factor:

Microbial Factor:

- *P. gingivalis*.

- *C. Rectus*.

- *Intermedia*.

Local Factor.

- Plaque accumulation.

- Plaque retentive force.

Systemic Factor:

- Diabetic Mellitus.

- Immunological Factor.

- Hormonal Factor.

Behaviour Factor:

- Smoking

- Emotional Stress.

Genetic Factor:

- Genetic Predisposition.

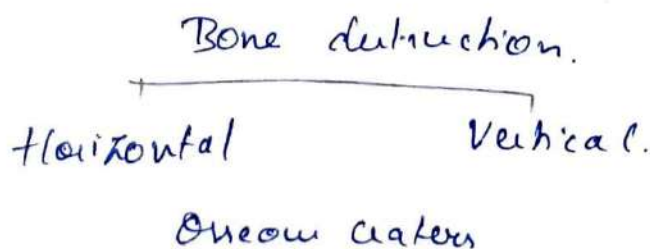
~~Septicemia~~ ~~Agar~~

- ⇒ Bull pain. Pain radiating to jaw.
- ⇒ Painless. Sometimes.
- ⇒ Gingival inflammation
 - moderate swollen inflammation is seen.
 - scalloped round margin.
 - Redden of gingiva.
 - Bleeding on probing.
- ⇒ Periodontal Pocket:
 - Pocket is seen.
 - loss of attachment.
- ⇒ Mobility:
 - In advanced stage mobility of teeth.

Treatment:

- Initial therapy
- Periodontal therapy
- Final restorative therapy
- Maintenance therapy.

8. Osseous craters:



Horizontal bone loss:

It is most commonly seen bone loss.

It shows varying resorption of surface of the same teeth.

The height of the bone is reduced.

Following inflammation, destruction of bone loss.

Vertical bone loss:

Angular defect.

Deep bony defect.

Interdental bone loss.

Periodontal Pocket is seen.

Oblique destruction of the bone.

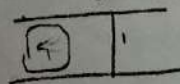
through-out of root resorption.

→ One wall defect

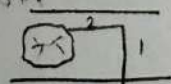
→ Two wall defect

→ Three wall defect

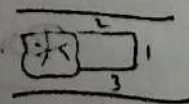
→ Combination defect.



1 wall defect



2 wall defect



3 wall defect

sinus buttress:

The resorption of bone is followed by the formation of new bone causes buttress.

The bone become density.

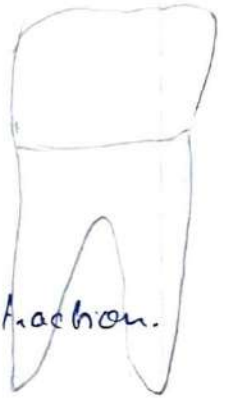
29

Thin cortical interdental bone followed by new bone formation.

The root appears large.

Difficulty in Extraction.

It causes necrosis of bone after extraction.



3. Primary Endo Secondary Perio Lesion.

Classification:

Primary Endo - lesion.

Primary endo Secondary Perio lesion.

Primary endodontic treatment is given. Root canal treatment after the completion of the procedure. Periodontal therapy is then proceeded.

13
25

DEPT OF PERIODONTICS MINDS
FINAL YEAR IRREGULAR BATCH
THIRD INTERNAL EXAM (February 2025)
MCQS (1 MARK EACH) - DURATION 30 MINS

- ✓ 1. Buttressing bone formation is a
 - a) Congenital Abnormality
 - b) Occurs Endosteally
 - c) Occurs Periosteally
 - ✓ d) Due to Trauma Form Occlusion
- ✓ 2. Gingival abscess involves
 - a) Marginal
 - b) Inter Dental
 - c) Attached
 - ✓ d) Marginal & Interdental
- X 3. Inflammatory changes in the soft tissue surrounding an implant is diagnosed as
 - a) Peri-implant gingivitis
 - ✓ b) Peri-implantitis
 - c) Pen-implant mucositis
 - d) Peri-implantosis
- ✓ 4. First implant system developed?
 - ✓ a) Noble biocare – Branemark
 - b) Noble biocare - Steri Os
 - c) ITI – Strauman
 - d) Astra
- X 5. Internal bevel gingivectomy is:
 - a) Apically displaced flap
 - b) Distal molar surgery
 - ✓ c) Widman flap
 - d) Undisplaced flap
- X 6. Decalcified freeze-dried bone graft is an example of
 - a) Xenograft
 - b) Autograft
 - ✓ c) Alloplast
 - d) Allograft
- X 7. Based on Bokenkamp's grading of enlargements, an enlargement covering 3/4th of the crown is considered as
 - a) Grade I
 - ✓ b) Grade II
 - c) Grade III
 - d) Grade IV
- X 8. Diffuse gingivitis includes
 - a) Marginal gingiva
 - b) Marginal and papillary gingiva
 - c) Marginal, papillary and attached gingiva
 - ✓ d) Marginal, papillary, attached and alveolar mucosa
- X 9. Which of the following bacteria is considered a primary pathogen in chronic periodontitis?
 - a) Streptococcus mutans
 - ✓ b) Porphyromonas gingivalis
 - c) Treponema pallidum
 - d) Lactobacillus casei
- ✓ 10. Which of the following medications can cause gingival overgrowth?
 - a) Metformin
 - ✓ b) Phenytoin
 - c) Atenolol
 - d) Ibuprofen
- ✓ 11. What HbA1C level indicates poorly controlled diabetes, which may negatively affect periodontal treatment outcomes?
 - a) Below 5%
 - b) 5%–6%
 - c) 6%–7%
 - ✓ d) Above 8%
- ✓ 12. What is trauma from occlusion primarily caused by?
 - ✓ a) Poor oral hygiene
 - ✓ b) Excessive occlusal forces on teeth
 - c) Genetic predisposition
 - d) Inadequate fluoride exposure

- ✓ 13. Which of the following is NOT a common symptom of trauma from occlusion?
- a) Tooth mobility
 - ✓ c) Pus discharge
 - b) Sensitivity to biting or pressure
 - d) Tooth migration
14. Intrabony defects are
- ✗ a) one-walled defect
 - c) three walled defects
 - b) two-walled defects
 - d) combination of above
15. Local irritating factors in gingiva will most likely give rise to:
- ✗ a) Pyogenic granuloma
 - c) Mucosal cobble stoning
 - b) Generalized fibrous hyperplasia of gingiva
 - ✓ d) Periapical abscess
- ✓ 16. For better osseo integration modifications on implant surfaces include -
- a) Sandbasting with Aluminum oxide
 - c) Plasma sprayed Titamum
 - b) Etching with Phosphoric acid
 - ✓ d) All of the above
- ✗ 17. Which of the following is a mucogingival surgery
- a) Free gingival graft
 - c) Gingivectomy
 - ✓ b) Widman flap
 - d) Gingivoplasty
- ✓ 18. Anorganic bone is an example of
- a) Autografts
 - c) Alloplasts
 - ✓ b) Xenografts
 - d) Allografts
- ✓ 19. Transplantation between genetically different members of the same species is termed as
- a) Autograft
 - ✓ c) Allograft
 - b) Isograft
 - d) Xenograft
- ✗ 20. Dilantin hyperplasia is treated with
- a) Gingivectomy
 - ✓ c) Apically repositioned flap
 - b) Gingivoplasty
 - d) Curettage
- ✓ 21. Which systemic condition is most strongly linked to periodontal disease?
- a) Hypertension
 - c) Osteoarthritis
 - ✓ b) Diabetes Mellitus
 - d) Parkinson's Disease
- ✗ 22. Periodontal disease during pregnancy has been associated with:
- a) Macrosomia
 - ✓ c) Neural tube defects
 - b) Preterm birth and low birth weight
 - d) Eclampsia
23. A tooth with a deep periodontal pocket and a non-vital pulp is most likely to have:
- a) Primary periodontal disease
 - b) Primary endodontic disease with secondary periodontal involvement
 - c) Primary periodontal disease with secondary endodontic involvement
 - ✗ d) true combined lesion
24. Which inflammatory marker is most elevated in both diabetes and periodontitis?
- a) Interleukin-4 (IL-4)
 - c) Interferon-gamma (IFN- γ)
 - ✓ b) Tumor necrosis factor-alpha (TNF- α)
 - d) Platelet-derived growth factor (PDGF)
25. Which radiographic feature is commonly associated with trauma from occlusion?
- a) Horizontal bone loss
 - ✓ b) Widening of the periodontal ligament (PDL) space
 - c) Pulpal calcification
 - d) Presence of caries

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CHALAKKARA, MAHE
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INTERNAL ASSESSMENT BOOK

SUBJECT: *Periodontics.*

Tick Questions Attempted :

Q₁ ☒

Q₂ ☒

Q₃ ☒

Q₄ ☒

Q₅ ☒

Q₆ ☐

Q₇ ☒

Q₈ ☒

Q₁ 4 10

Q₅ 1 5

Q₂ 3 1/2 10

Q₆ 5

Q₃ 2 5

Q₇ 1 5

Q₄ 2 1/2 5

Q₈ 1 1/2 5

15 45

No. of Additional

TOTAL

Sheets used.

Total in Words

fifteen

Evaluated by:

P. Sanka

Name of the candidate: *C. Prayadharshini*

Reg. No: *19DS0261*

Signature *Prayadharshini*

Date: *5/2/25*

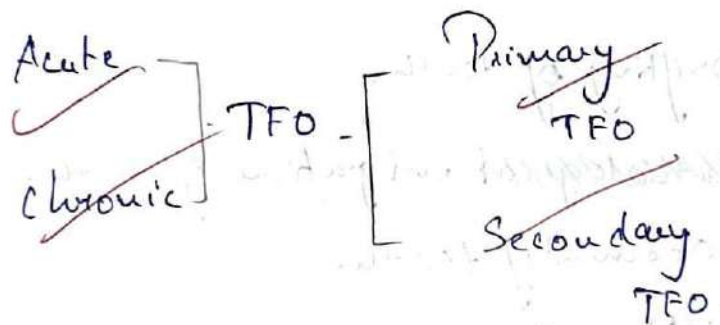
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Signature of Invigilator

Section - A.

1. Trauma From Occlusion: *occlusal Jones*

When the ~~trauma~~ *occlusal* from occlusion exceeds the ~~adaptive~~ capacity of the tissue, tissue injury results. This tissue injury result is known as Trauma from occlusion.

classification.



Acute TFO:

When the TFO results on biting on the hard object.

Etiology:

Overhanging restoration.

Prosthesis.

Orthodontic bands.

Cause:

TOOTH mobility

~~on~~ cusp fracture.

Fractured restoration.

Chronic TFO:

When TFO results from drifting movement of teeth, extrusion, etc.

Etiology:

Drifting of teeth.

Pathological migration of teeth.

movement of tooth.

Tilting of teeth.

Primary TFO:

When trauma from occlusion results from the alteration of occlusion, the tooth cannot withstand the force.

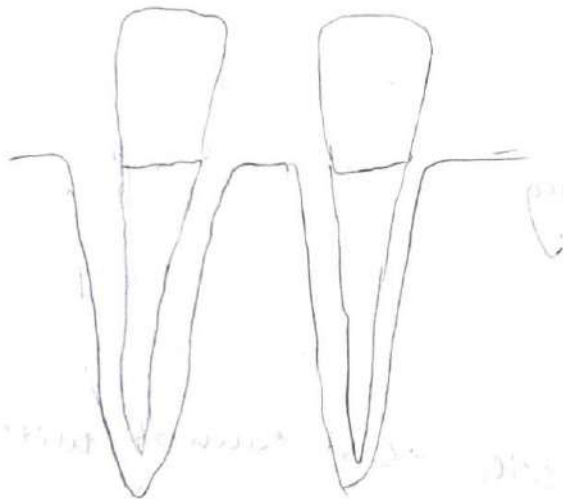
In this the PDL is healthy & the bone level is normal.

Cause:

Tooth mobility

Sensitivity to cold & heat

Weakening of PDL. Excessive force



Secondary TFO:

When TFO results from the excess force of the occlusion that cannot resist the occlusal force

In this PDL is weakened & loss of bone is

seen.

Cause:

Tooth mobility,

Sensitivity of cold & heat.

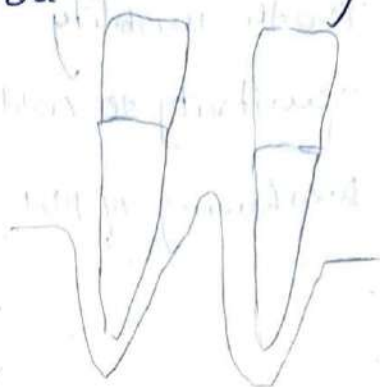
Bone loss.

Loss of Attachment

The tooth that cannot withstand the normal force of occlusion is secondary TFO.

Stages:

- > Injury ✓
- > Repair ✓
- > Remodelling ✓



Injury:

The tooth that cannot withstand the force, the tissue injury begins.

There is bone loss, weakening of PDL.

Injury to soft tissues.

Mobility is seen.

Repair:

Then, by themselves, Repair takes place.

Resorption of bone, replaced by formation of bone.

Buttressing of bone is seen in this stage.

Remodelling.

when the formation of bone fails to take place. Repair does it take place.

Remodelling of PDL takes place.

The tooth themselves comes to the

original form.

Management:

- Occlusal plane.
- Permanent or temporary splinting.

2. Endopara lesion:

Simon's classification:

Primary Endo-lesion.

Primary Endo and secondary Prio-lesion.

Primary ~~Endo~~ Prio-lesion.

Primary Prio lesion and secondary Endo-lesion.

True Combined lesion.

Primary Endo-lesion:

the endodontic lesion is seen.

eg: Non-vital tooth, Deep caries involving

Pulp.

Treatment: RCT.

Primary Endo & secondary Prio-lesion.

Because 1st Endodontic lesion occurs through

that Prio-lesion takes place.

eg: Due to the caries, the Necrosis of the Pulp spread to the PDL & causing Periodontal Pocket.

Treatment: RCT followed by scaling & Root

Planing or flap surgery.

Primary Periodic lesion:

The Periodontal lesion is seen.

Eg: Periodontal Pocket.

Treatment: flap surgery.

Etiology:

⇒ Primary Periodic & secondary endo lesion.

Due to Periodic lesion, endodontic lesion

Occur.

eg: Deep Pocket spread to the Root canal.

Treatment: RCT followed by flap surgery

True Combined lesion:

This lesion cannot be differentiated, which occurred Primary.

Deep Periodontal Pocket with non-vital tooth.

Treatment: RCT followed by flap surgery.

⇒ Management of Primary, Prio secondary endo lesion:

Prio - lesion Occured Primarily followed by

Endodontic lesion.

Deep Pocket with Root apex caries.

PCT is treated & followed by scaling and

Root Planing or flap surgery.

If the Deep Pocket causing mobility is seen,

splinting of tooth.

Section-B.

3. Steps in Resective Osseous Surgery:

Step 1: Vertical Grooving

Step 2: Radicular incision.

Step 3: Flattening of interproximal bone.

Step 4: Readaptation of the bone.

Step 1: Vertical Grooving:

Resective Osseous Surgery:

It is defined as the change in the alveolar bone to get rid of deformities caused by Periodontal destruction or other factors causing it.

Step 1: Vertical Grooving:

The vertical incision is made, on

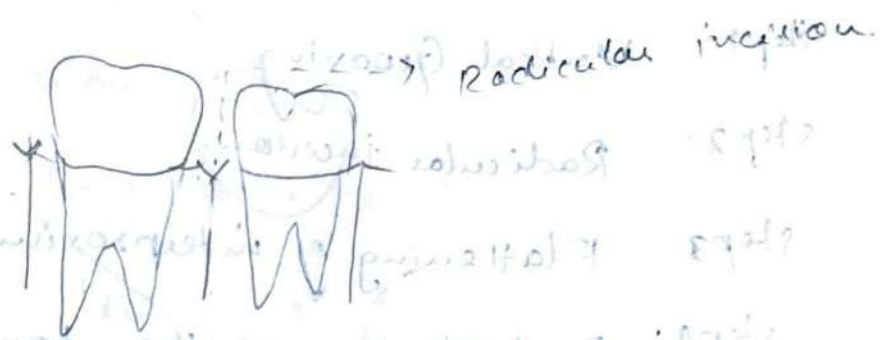
the interproximal area.

Step 2: Radicular incision.



Vertical
grooving

A triangular shape incision adjoining the interproximal area is made,

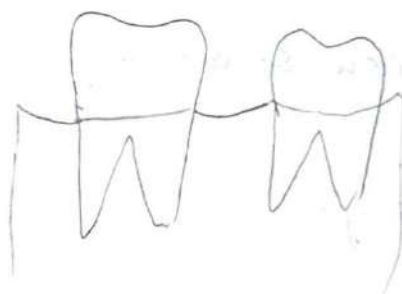


step 3:

Flattening of interproximal bone:

To equalize the levels of bone to same level

Flattening of the interproximal bone.



step 4:

Readaptation of the bone.

The bone in interproximal area is adapted to the tooth by suturing.

4. Classification of gingival Recession:

- Miller's Classification:

Class I:
Marginal gingiva ^{is not below or to} below the level of mucogingival junction. ~~There is~~ no bone loss.

Class II:
Marginal gingiva ^{extending or to} below the level of mucogingival junction. There is no bone loss.

24 Class III:
Marginal gingiva below the mucogingival junction. There is interdental bone loss.

Class IV:
Marginal gingiva below the mucogingival junction. There is severe bone loss. ^{h soft tissue loss.}

- Stullman's & Atkin's

- shallow, narrow ✓

- shallow, wide ✓

- Deep, narrow ✓

- Deep, wide. ✓

5. Drug Induced gingival enlargement:

Anticonvulsants ✓

Phenobarbiton.

Phenytoin.

Other Anticonvulsants.

Carbamazepine.

Ca channel blockers. ✓

Nifedipine. ✓

Immunosuppressants. ✓

Cyclosporine. ✓

Management:

Immediate stoppage of the drug.

with physician concern.

Gingival enlargement is seen in interdental space.

7. Osteointegration:

The growth of bone in the space of the

Implant:

- Fibrous
- Osseous

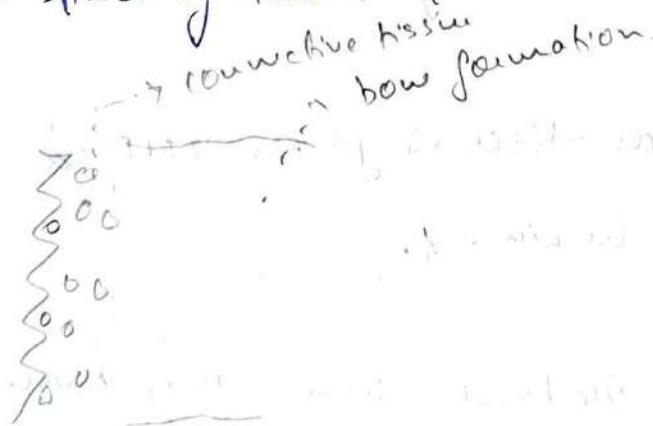
Fibrous:

The connective tissue is formed in between and the bone formation is seen.

It is Pseudo osteointegration.

Osseous:

The bone formation is seen in between the space of the implant placed.



Fibrous growth



Osseous growth

For the Osseous growth, (Titanium) ^{selection} implants
to be used. is necessary, eg: Titanium

Plasma sprayed titanium.

8. 2 way relationship between diabetes & Periodontitis.

For diabetes is systemic disease, Periodontitis
is commonly observed.

Treating of Periodontitis, control the diabetic
level.

Treating the ~~Diabetes~~ ^{Diabetes} in Periodontitis patient,
there increase in uptake of glycemic level in blood.

Flamones;

- Tumor Necrosis factor TNF- α .
- Interleukin - 4.

Diabetes Patient seen. Dry mouth, more
caries Activity, more prone to Periodontitis.