Behavior and mangement

Muftah fager ali

Behavior management means by which the dental health team effectively and efficiently performs treatment for achiled and at the same, installs apositive dental attitude.

FEAR

Fear is primary emotion for survival against danger, which is acquired soon after birth.

TYPES OF FEAR:-

1-objective fear

2-subjective fear

OBJECTIVE FEAR:-

They are the respons to stimuli that are felt, seen, heard, smelt or tasted and are not liked or accepted.

SUBJECTIVE FEAR:-

These are based on the feelings and attitudes that have been suggested to child by others about dentistry without the child having had the experience personally.

PEDIATRIC DENTAL CLINIC

FACTORS INFLUENCING CHILD'S BEHAVIOR

1-FACTOR INVOLVING THE CHILD:

A. Growth and development

B. I.Q of child

C. Past dental experience

D. Social and adaptive skill

E. Position of child in the family

2- FACTORS INVOLVING THE PARENTS:-

A. Family influence

B. Parent-child relationship

C. Maternal anxiety

D. Attitude of parents to dentistry

3- FACTORS INVOLVING THE DENTIST

A. Appearance of the dental office

B. Personality of the dentist

C. Time and length of appointment

D. Dentist's skill and speed

E. Use of fear promoting word

F. Use of subtle, flattery, praise and reward

CLASSIFICATION OF CHILDREN'S BEHAVIORS

1- CO-OPERATIVE BEHAVIOR:-

Reasonably relaxed, have minimal apprehension and can be treated by a straight forward behavior shaping approach.

2- LACKING CO-OPERATIVE BEHAVIOR:-

-This behavior is contrast to co-operative child.

-Includes very young child (<2.5) or with specific debilitating or handicapping conditions.

3- POTENTIALLY CO-OPERATIVE BEHAVIOR

- Differs from a child lacking cooperative ability in that this child is able to cooperate and is physically and medically fit.
- Potentially cooperative group are further categorized as follows:

A- Uncontrolled behavior:-

- Seen in 3-6 years.
- Tantrum may begin in the reception area or even before.
- Tears, loud crying, physical lashing out and flailing of hands and legs all suggestive of a state of acute anxiety or fear.

B- Defiant behavior:-

- Can be found in all ages, more typical in the elementary school group.
- Distinguished by “I don’t want to” or “I don’t have to” or “I wont”.
- Once won over, these children frequently become highly cooperative.

C- Timid behavior:-

- If they are managed incorrectly, their behavior can deterioate to uncontrolled.
- May be from an overprotective home environment or may live in an isolated area having little contact with strangers.
- Needs to gain self confidence of the child.

D- Tense cooperative behavior:-

- Accept treatment, but are extremely tense.
- Tremor may be heard, when they speak.

E- Whining behavior:-

- Thay do not prevent treatment, but whine throughout the procedure.
- Great patience is required while treating such children.

CONTROLLED BEHAVIOR

UNCONTROLLED BEHAVIOR

TIMID BEHAVIOR

Behavior management can be achieved by basically two methods:-

1- Non pharamcological methods.

A- Preappointment behavior modification.

B- Communication.

C- Behavior shaping.

Tell-show do technique.

Modeling.

D- Behavioral management techniques.

- Audioanalgesia
- Aversive conditioning
- Implosion therapy
- Retraining

2- Pharmacological methods.

A- Sedative

B- Hypnotic

C- General anesthesia

D- Tranquilizer

Preappointment behavior modification

Various methods used for preappointment behavior modification includes letters, films and videotaps.

COMMUNICATION

The hallmark of successful dentist in managing children is his ability to communicate with them and win their confidence.

TELL-SHOW DO TECHNIQUE

In this technique the child is told about the treatment, showed the instruments and then the treatment is performed.

MODELING

This prosedure involves, allowing patient to observe one or more model who demonstrate appropriate behavior in a particular situation.

TELL-SHOW –DO TECHNIQUE

MODELING

BEHAVIOR MANAGEMENT TECHNIQUE

Audioanalgesia it is also called as 'white noise'. This consist of providing a sound stimulus of such intensity that the patient finds it difficult to attend to anything else.

AVERSIVE CONDITIONING

1- Hand over mouth technique.

Used for children with sufficient maturity to understand simple verbal commands.

Contraindicated in immature frightened, or the child with a serious physical, mental or emotional handicap.

HAND OVER MOUTH TECHNIQUE

2- Physical restraints

- Papoose board
- Triangular sheet
- Pedi wrap
- Mouth prop or bite block

3- Voice control

The dentist can raised his voice and instruct the child in short but strict commands.

PAPOOSE BOARD

PEDI WRAP

MOUTH PROP

THANK YOU

Gingival and periodontal disease in children

Muftah fager ali

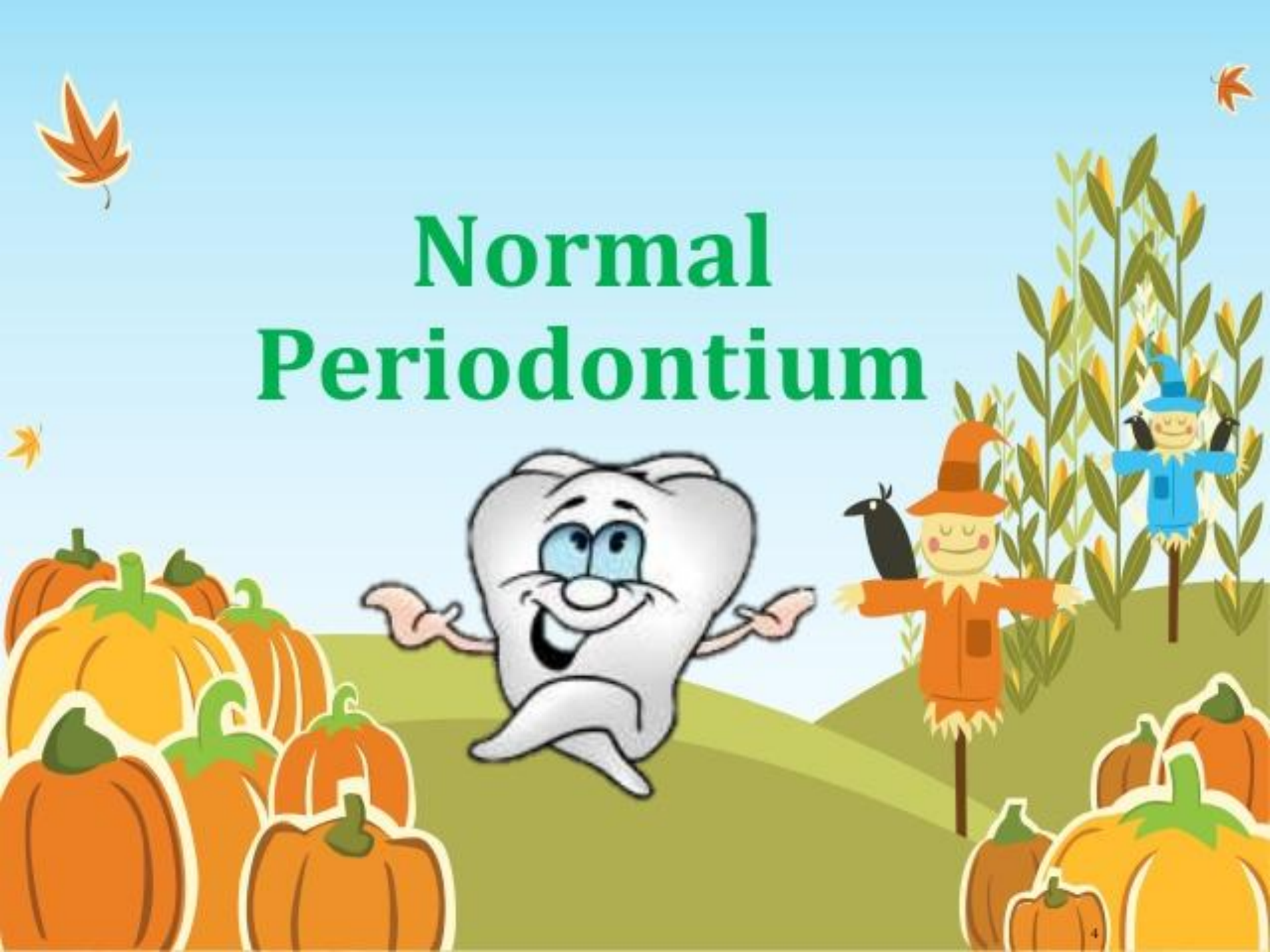
Gingival and Periodontal Diseases in children

Presentation By:
Garima singh

Introduction

- Periodontal diseases peak their destructive stages in the middle age , but many of them have their inception during childhood.
- The early detection and early treatment are important from a preventive aspect since, the prevention of most periodontal diseases are relatively simple and very effective, providing lifetime benefits.

Normal Periodontium



- The clinical and radiographic images of gingiva and periodontium in children and adolescent differ from those seen in adults, owing to the significant changes taking place during growth and development.
- The periodontium during childhood and puberty is in constant state of change owing to the exfoliation and eruption of teeth.
- This makes a general description of the normal periodontium difficult because it varies with age of the patient. (Baer and Benjamin, 1974)

Features	Children	Adults
Gingival colour	More reddish	Coral pink
contour	Free gingival margin-rounded	Gingival margin-knife edge
Consistency	Flabby due to less CT density and lack of organized collagen fiber bundles	Firm and resilient
Surface texture	Stippling absent in infancy. `Mostly seen by age of 6 yrs	Stippling present

feaatures	Children	Adults
Interdental area	Saddle shaped gingiva	Papillary gingiva
Gingival sulcus	Newly erupted teeth sulcus depth is greater than deciduous predecessor	1-2mm
Attached gingiva	Width increases with age and concomitant decrease in sulcus depth	Greater in adults

Gingival & Periodontal diseases

Classification:

GINGIVAL CONDITIONS

Acute gingivitis

- Herpetic gingivostomatitis
- Necrotizing ulcerative gingivitis

Chronic gingivitis

- With local contributing factor (Plaque induced)
- Without local contributing factor

Gingivitis associated with systemic disease

Welbury R, Duggal MS, Hosey MT. Pediatric dentistry, ed 4, Oxford, 2012

PERIODONTAL CONDITIONS WITH LOSS OF CONNECTIVE TISSUE ATTACHMENT

Early-onset periodontitis

- Localized aggressive periodontitis
- Generalized aggressive periodontitis

Prepubertal periodontitis associated with systemic disease

- Papillon-Lefevre syndrome
- Ehlers-Danlos syndrome
- Chediak-Higashi syndrome
- Leucocyte adhesion deficiency syndrome
- Neutropenias

Gingival diseases

Gingivitis

- Dental plaque induced gingival inflammation is the most common form of gingivitis.
- It is characterized by inflammation of gingival tissues without loss of attachment or bone.
- Local factors contributing t
  children
  - Crowded teeth
  - Orthodontic appliances

- Gingivitis associated with poor oral hygiene is usually classified as
  - Initial lesion
  - Early lesion
  - Moderate lesion
  - Advanced lesion

Stages of gingivitis

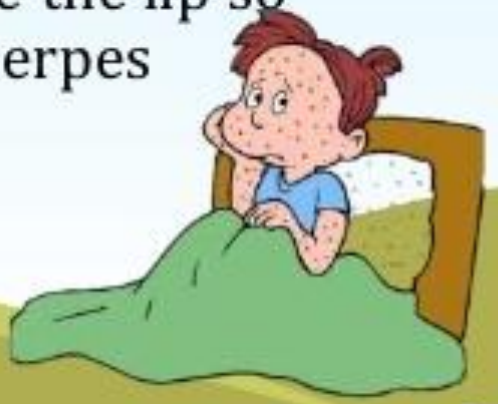
stage	Initial stage	Early stage	Established stage
Time (days)	2-4	4-7	14-21
Blood vessels	Vascular dilatation	Vascular proliferation	Vascular proliferation, Blood stasis
Junctional & Sulcular epi.	Infiltration by PMNs	Same as stage 1,	Same but more advanced
Predominant immune cells	PMNs	Lymphocytes	Plasma cells
Collagen	Perivascular loss	Increased loss	Continuous loss
Clinical findings	Gingival fluid flow	Erythema, Bleeding on probing	Changes in color, texture, size

Acute gingival diseases

- Primary herpetic gingivostomatitis
- Recurrent aphthous ulcer
- Acute necrotizing ulcerative gingivitis (vincent infection)
- Acute candidiasis (thrush, candidosis)

Primary herpetic gingivostomatitis

- Caused by Herpes simplex virus type 1
- Age-Children younger than 6 yrs, but also may be seen in adolescents and adults.
- Primary infection is asymptomatic
- Location- lesions mainly involve hard palate, attached gingiva and oral mucosa.
- Manifestations include blister outside the lip so disease commonly called recurrent herpes labialis.



- Characteristic oral finding:
  - Diffuse erythmatous involvement of gingiva.
  - Initial stage in characterized by discrete spherical gray vesicles.
  - Lip- excoriation involving lip become hemorrhagic
  - Course is self limited to 7-10 days.

- Etiology:
  - Immunological abnormality: mucosal destruction T-mediated immunological reaction.
  - Microbial organism: ∝-hemolytic strept. And S. sanguis.
  - Systemic factors: like nutritional deficiency

- Oral symptoms:
  - Generalized soreness
  - Ruptured vesicles – focal site of pain
  - Infants show irritability and refusal to eat
  - Pain upon swallowing
- Extra oral symptoms:
  - Cervical lymphadenopathy
  - Fever (101- 105°C)
  - Generalized malaise, irritability

Treatment

- Symptomatic & supportive.
- Application of mild anesthetic such as dyclonine hydrochloride(0.5%)
- Bed rest , soft diet are recommended during the febrile stage & the child should be kept well hydrated.
- Pyrexia - paracetamol suspension and secondary infection of ulcers may be prevented using chlorhexidine.
- In severe case, systemic acyclovir(200 mg daily for 5 days).

Recurrent aphthous ulcer

- Characterized by painful ulceration on the oral mucosa
- Occurs between school age and adults
- Recurrent ulceration with painful discrete and confluent lesions.
- Lesions are round to oval crateriform base, raised and reddened margins.

- Etiology:
  - Immunological abnormality: mucosal destruction T-mediated immunological reaction.
  - Microbial organism: ∝-hemolytic strept. And S. sanguis.
  - Systemic factors: like nutritional deficiency

- **Clinical features:**
  - Occur between second and third decade of life.
  - Buccal and labial mucosa tongue and gingiva are commonly involved.
  - Symptoms- lesions are typically very painful.
  - Signs- begins as single or multiple superficial erosion covered by grey membrane, surrounded by localized area of erythema.

Treatment

- Symptomatic treatment
- Topical corticosteroid triamcinolone 3-4 times daily by rinse and expectorate method.
- Nutritional diet.
- Maintenance of oral hygiene.

Acute necrotizing ulcerative gingivitis

- Characterized by sloughing of gingival tissue
- Uncommon in children
- Predisposing factors:
  - Local: poor oral hygiene, pre-existing gingivitis and smoking
  - Systemic: Emotional stress
- Nutritional deficiency –Vit B and C

- Clinical features
  - Characteristic lesions are punched out, crater like depression at the crest of interdental papillae
  - Surface of gingival craters is covered by pseudomembranous slough.
  - Linear erythma.

.

Atout RN, Todescan S. Managing patients with necrotizing ulcerative gingivitis. J Can Dent Assoc. 2013;79:d46.

- Extra oral and systemic symptoms:
  - Local lymphadenopathy
  - Elevation in temperature
  - Increased pulse rate, leukocytosis, loss of appetite, and general lassitude
  - Systemic reactions are more severe in children, insomnia, constipation, GIT disorders, headache etc.

- Treatment:
- Perform debridement under local anesthesia.
- Remove pseudomembrane.
- Patient counselling should include specific oral hygiene instructions, instruction on proper nutrition,
- For any signs of systemic involvement, the recommended antibiotics are:
  - Amoxicillin, 250 mg 3 x daily for 7 days and/or
  - Metronidazole, 250 mg 3 x daily for 7 days

Acute candidiasis (thrush, candidosis)

- Acute candidiasis:
  1. Pseudomembranous
  2. erythmatous
- Causative organism- C. albicans (yeast like fungus.
- Pathogenesis-

- Clinical features:
  - Pearly white or bluish white plaque present on oral mucosa which may extend to circumoral tissues.
  - Painless and noticed on careful evaluation. They may be removed with little difficulty.
  - Patient may complain of burning sensation.

- Treatment:
  - Infants and very young children
    - Nystatin 1ml (100,000U) dropped in to mouth for local action four times a day.
    - Clotrimazole suspension (10mg/ml) 1 to 2 ml applied over affected areas four times daily
    - Systemic fluconazole suspension (10mg/ml) 6mg/kg body weight

Gingival enlargement

- Inflammatory enlargement
  - Chronic inflammatory enlargement
  - Acute inflammatory enlargement
- Drug induced gingival enlargement
- Vitamin C deficiency associated gingival enlargement

Chronic inflammatory gingival enlargement

- Long standing gingivitis in young patient sometimes results in chronic inflammatory gingival enlargement, which may be localized or generalized.
- Etiology:
  - Prolonged exposure to plaque
  - Factors that favour plaque accumulation and retention.
  - Chronically dried gingiva in mouth breathing

- Clinical features:
  - Characterized by slight ballooning of interdental papilla and marginal gingiva.
  - In early stage , it produces a life preserver-shaped bulge around the involved teeth.
- Treatment:
  - Removal of local irritants
  - Oral hygiene maintenance

Chronic inflammatory gingival enlargement

Acute inflammatory enlargement

- **Gingival abscess**
- Is a localized, painful rapidly expanding lesion that is usually of sudden onset
- Etiology:
  - Irritation from foreign substance
    - Tooth brush bristle
    - Piece of apple core
    - Lobster shell fragment –embedded in to gingiva

- Clinical feature:
  - Localized, painful, rapidly expanding lesion
  - Limited to the marginal gingiva or interdental papillae
  - Early stage: red swelling with smooth shiny surface
  - With in 24 hours to 48 hours- lesion will be fluctuant.
- Management: Incision and drainage

Drug-induced gingival enlargement

- Drug-induced gingival enlargement:
  - Anticonvulsant
  - Immunosuppressant cyclosporine
  - Calcium channel blocker
- Clinical and microscopic features of enlargement caused by different drugs are similar.

- Clinical features:

- The growth starts as a painless, beadlike enlargement of the interdental papilla and extends to the facial and lingual margins.

- As the condiiton progress, marginal and papillary enlargment units and may develop into a massive tissue fold.

- May interfere with occlusion.

Treatment modalities

Mild – < 1/3 of clinical crown	oral hygiene maintenance and frequent dental care
Moderate- 1/3 to 2/3 of clinical crown	oral hygiene Antiplaque mouthrinse 4 consecutive weekly office visits for prophylaxis, 5th week- evaluate the gingiva If no improvement – surgical correction
Severe – > 2/3 of clinical crown	If does not respond above treatment. Surgical correction is done -meticulous oral hygiene is essential . Surgical procedure:- gingivectomy, laser, or electrosurgery.

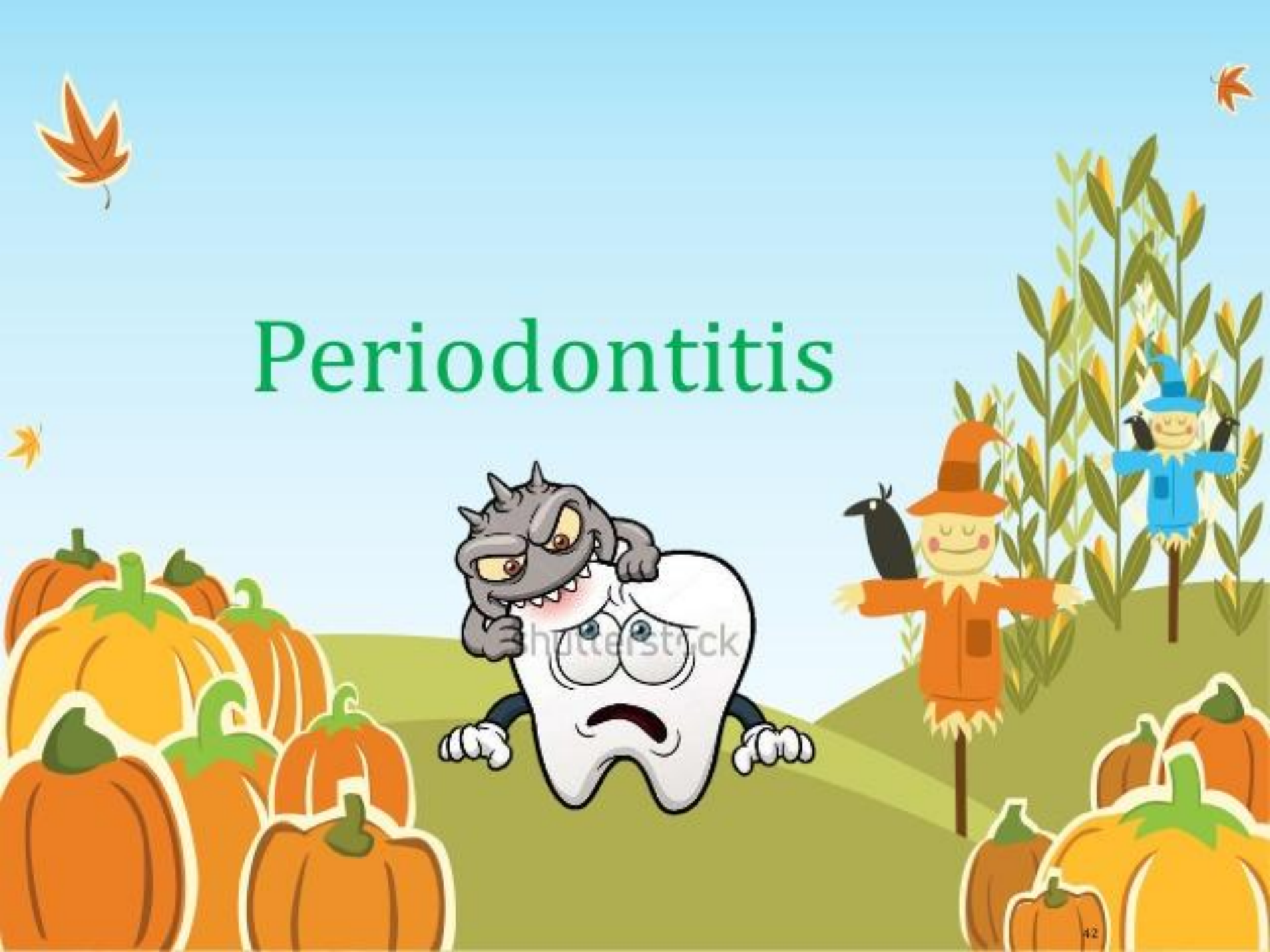
Ascorbic Acid Deficiency Gingivitis

- Associated with vit C deficiency
- Involves marginal and papillary gingiva in the absence of local predisposing factors
- Complains of severe pain and spontaneous hemorrhage
- Treatment: Complete dental care, improved dental hygiene, and supplementation with vit C – improves gingival conditions

Eruption Gingivitis

- Gingivitis associated with tooth eruption.
- Tooth eruption usually does not cause gingivitis, however inflammation associated with plaque accumulation around erupting tooth.
- perhaps secondary to discomfort caused by brushing these friable areas, may contribute to gingivitis.
- Treatment: Complete dental care, improve oral hygiene.

Periodontitis



- It is inflammatory disease of gingiva and deeper tissues of periodontium.
- Characterized by pocket formation and destruction of supporting alveolar bone.
- Periodontal probing for attachment loss and bitewing radiograph are often used to clinically confirm the diagnosis.

- According to Delaney, in preschool children with periodontitis, recession, gingival erythema, and oedema are not usually found unless the child is neutropenic.
- Bimstein and Colleagues demonstrated abnormal alveolar bone resorption in 7.6% of 4yr old children and 5.9% of 5yr old children with high caries.
- In its classification of periodontitis, the American Academy of Periodontology categorized the early-onset form under Aggressive Periodontitis.

Delaney JE. Periodontal and soft tissue abnormalities. Dent Clin North Am. 1995;39:837-850
Bimstein E, et al. Radiographic assessment of alveolar bone in children and adolescents. Pediatr Dent. 1988;10:199
American Academy of Periodontology. Parameter on aggressive periodontitis. J Periodontol. 2000;71(suppl):867

Aggressive periodonti

...lbander and ass... ...s prop... ...term early-onset
...titis.

- This ... ...is following

Page and colleagues believe that there are four different forms of periodontitis : prepubertal, juvenile, rapidly progressing and adult.

COMMON FEATURES OF LAP AND GAP

- Aggressive forms of periodontal disease have been defined based on the following primary features (Lang et al. 1999)
  - Non-contributory medical history
  - Rapid attachment loss and bone destruction
  - Familial aggregation of cases

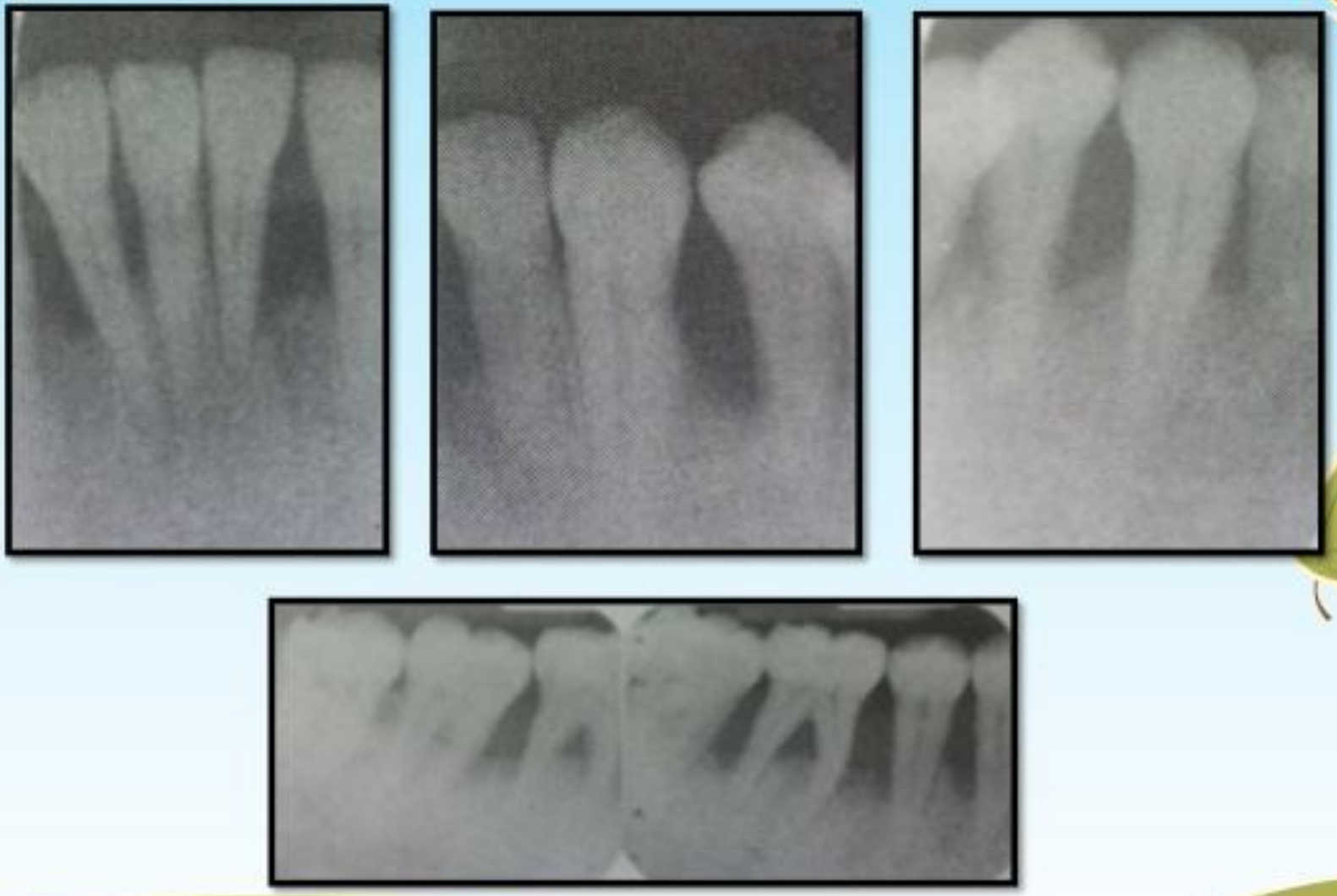
Localized Aggressive periodontitis(LAP):

- Clinical features:
  - characterized by "localized loss of attachment and bone around permanent incisors and first permanent molars"

- Prevelence is 1%
- It is linked to presence of Actinobacillus actinomycetemcomitans and successful treatment outcomes correlate well with eradication of bacteria.
- Treatment : local measures in combination with systemic antibiotic therapy.

Generalized aggressive periodontitis (GAP):

- It sometimes occurs in adolescents and teenagers.
- Characterized by generalized interproximal attachment loss affecting at least three permanent teeth other than incisor and first molar.



Radiographs showing the severe generalized nature of disease

Treatment:

- A combined regimen of regular SRP with 2-week course of systemic tetracycline therapy (250 mg, four times daily) .
- Aa is sensitive to tetracycline, which also has the ability to be concentrated up to 10 times in gingival crevicular fluid when compared with serum.

- A combination of metronidazole (250 mg) & amoxicillin (amoxycillin) (375 mg), three times a day for 8 days, in association with subgingival scaling, has also been found to be effective.

- A more radical approach is to undertake flap surgery so that better access is achieved for root cleaning, and the superficial, infected connective tissues are excised.

- An antimicrobial regimen can also be implemented in conjunction with a surgical approach.

Systemic diseases and conditions with associated periodontal problems

- Diabetes
- Down syndrome
- Hypophosphatasia
- Neutropenia
- Leukemia

Type of X ray radiation in child

Muftah fager ali

TYPES OF DENTAL RADIOGRAPHS

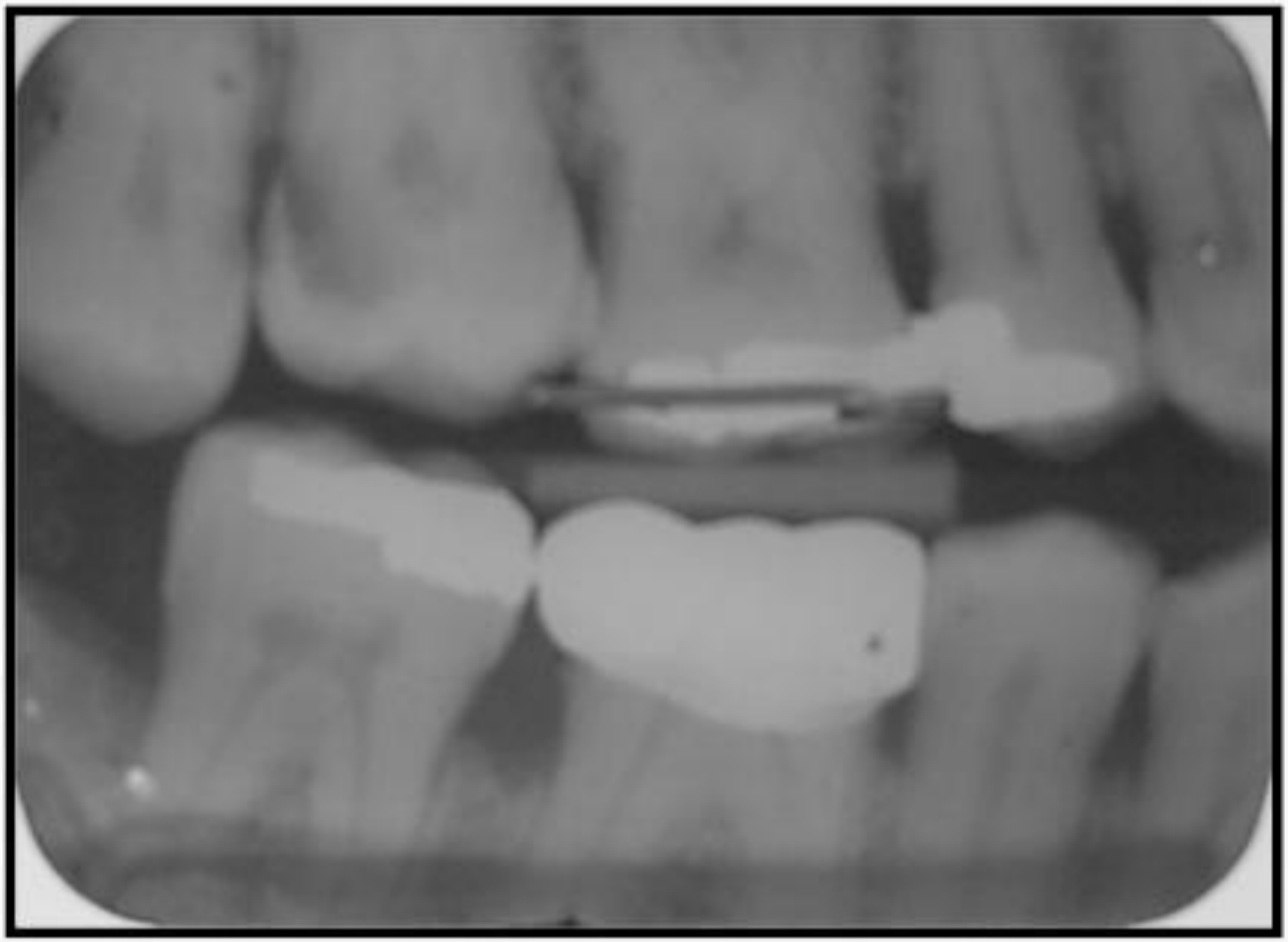
1. Extraoral Radiographs
   - OPG / DPT
   - Lateral Ceph
   - PA view

2. Intraoral Radiographs
   - Bitewing Radiographs
   - Occlusal Radiographs
   - Periapical Radiographs

BITEWING RADIOGRAPHS

Indications

- Routine radiograph at regular dental checkups
- Proximal Caries
- Monitoring of progression of caries
- Overhanging restorations
- Diagnosis of Periodontal disease



Periapical Radiographs

Aims

- Image of whole length of tooth & surrounding bone.
- Allows comparison between pre & post op condition
- To undertake procedures as swiftly as possible to minimize patient discomfort

Aims

- Image of whole length of tooth & surrounding bone.
- Allows comparison between pre & post op condition
- To undertake procedures as swiftly as possible to minimize patient discomfort

Indications

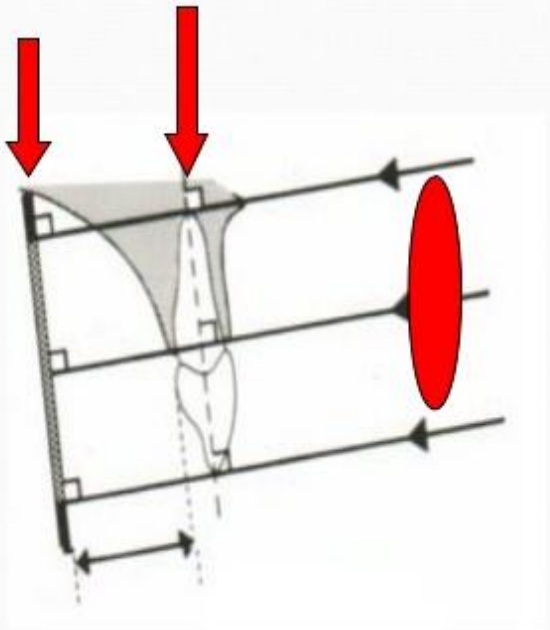
- Assessment of periodontal status
- Endodontics
- Assessment of apical surgery
- Detection of apical cyst
- After dental trauma
- Assessment of root morphology before extraction

Techniques

- Paralleling film Or Paralleling Technique
- Bisecting Angle Technique
- SLOB Technique

Paralleling Technique

- Film should be placed in the mouth parallel to long axis of tooth being examined
- Central ray of X-ray beam is directed perpendicular to film and long axis of the tooth
- A film holder must be used to keep the film parallel to the tooth



Advantages

- **ACCURACY**

  Image produced has dimensional accuracy and free of distortion

- **SIMPLICITY**

  Simple and easy to learn and use

- **DUPLICATION**

  Easy to standardize and can be accurately repeated

Disadvantages

- **FILM PLACEMENT**

  Requires film holder to place films which is difficult to place in children , small mouth patients.

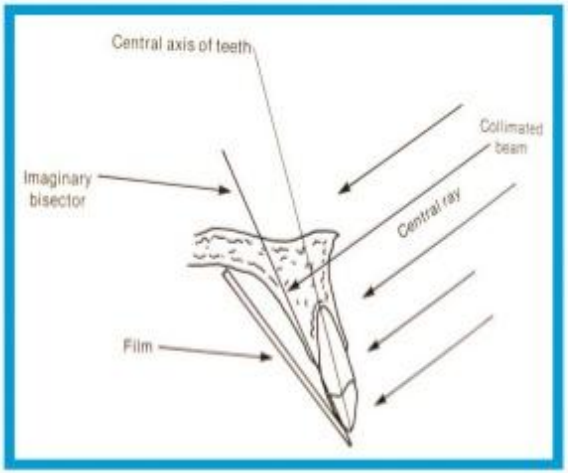
  Anatomy sometimes make technique impossible, e.g. shallow palate, third molar region

- **DISCOMFORT**

  Positioning of film packet can be un-comfortable

Bisecting Angle Technique

- Also known as short cone technique
- Film placed close to the tooth
- Angle formed between tooth and film bisected
- Tube head directed at right angles to bisecting line



Advantages

- This technique can be used without film holder
- Comfortable for patient
- Less time required

Disadvantages

- Image distortion/magnification
- Technique sensitive, retakes!!!
- Not reproducible
- Superimposition of zygomatic buttress over upper molars

SLOB TECHNIQUE

SAME

LINGUAL

OPPOSITE

BUCCAL

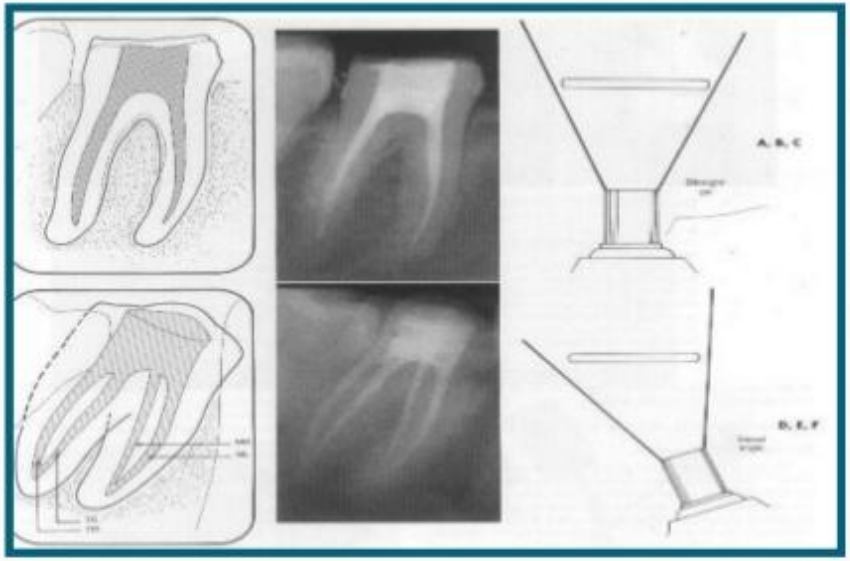
Indications

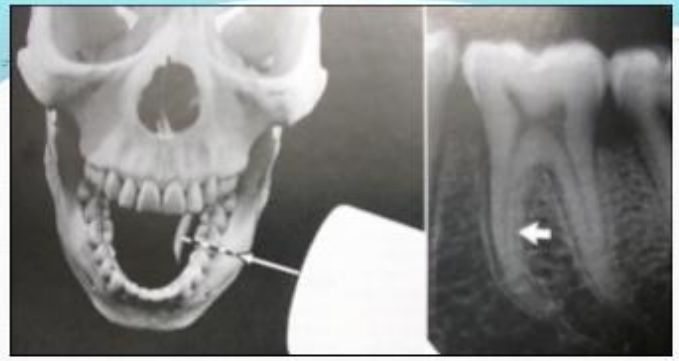
- Overlapping canals e.g. mesial root of mandibular molar
- Retained roots
- Unerupted teeth
- Foreign bodies

- Cone shift technique, mesial shift, Clark's shift, Buccal object rule
- Reveals the third dimension

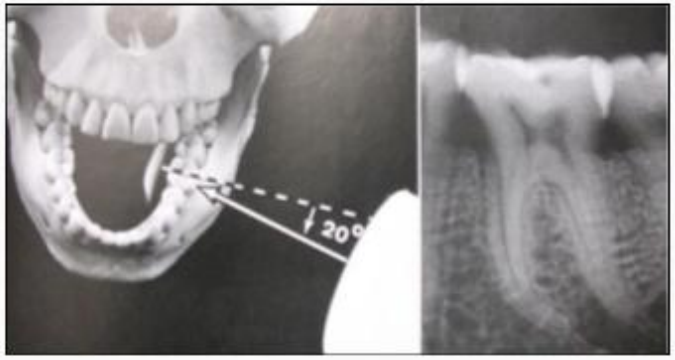
Principle

A technique for ascertaining relative position of two objects





The resulting radiograph shows a **l**ingual object that moved in **S**ame direction as cone and **b**uccal object that moved in **O**pposite direction

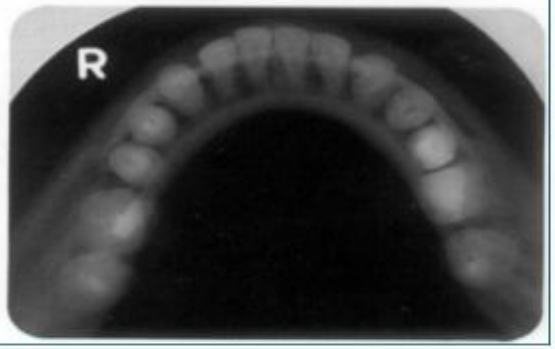


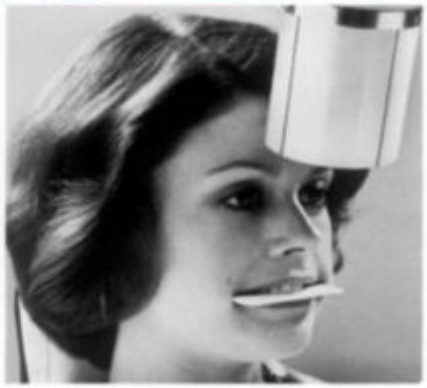
Occlusal Radiographs

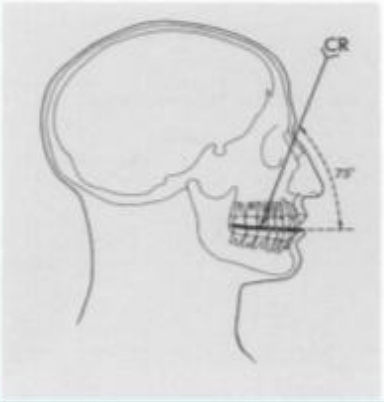
Indications

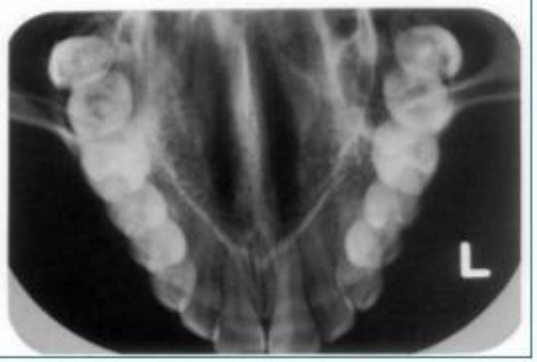
- Detecting the presence of unerupted teeth, supernumaries and odontomes
- Determining the bucco-lingual relationship of objects
- Evaluation of the size and extent of lesions such as cysts or tumors
- Assessment of fractures of the jaw


CR


R




CR
75°


L

Panoramic Radiography / OPG

Panoramic radiography

Panoramic radiography (rotational radiography) is a radiographic procedure that produces a single image of the facial structures, including both maxillary and mandibular arches and their supporting structures

Advantages

- Broad anatomic region imaged
- Positioning is relatively simple
- Relatively less radiation dose (about one third of the dose from a full mouth survey of intra-oral films)
- View of both sides of the jaws is useful in the assessment of fractures
- Over all view is helpful for initial assessment of periodontal status
- Antral floor can be seen
- Both condylar heads are shown on one film, allowing easy comparison
- Procedure can be performed in patients of limited mouth opening

Disadvantages

- Resultant image does not resolve the fine anatomic detail that may be seen on intra oral peri-apical radiograph
- Soft tissues and air shadows can overlie the required hard structures
- Technique is not suitable for children because of length of exposure cycle
- Cost of machine is almost double or four times than that of intra-oral machine

Indications

- Orthodontic assessment
- Lesions like cyst,tumors and development anomalies in the body and rami of mandible to establish the site and size
- Fractures of mandible
- Antral diseases, especially to asses the floor, posterior and anterior walls of antrum
- To investigate the quality of articular surface of the condylar heads
- Periodontal diseases; an overall view of alveolar bone levels
- Assessment of the presence and position of wisdom teeth
- Assessment of any underlying disease before construction of prosthesis
- Evaluation of vertical height of bone before insertion of implants

Radiation Hazards

MECHANISM OF RADIATION INJURY

- **IONIZATION (DIRECT EFFECT)**
- **FREE RADICAL (INDIRECT INJURY)**

Radiosensitive cells

- Small lymphocytes
- Bone marrow
- Reproductive cells
- Mature bone

Radioresistant cells

- Mature bone
- Muscle
- Nerve

CRITICAL ORGANS IN DENTAL VICINITY

- SKIN
- THYROID GLAND
- BONE MARROW
- LENS OF EYE

RADIATION EFFECTS

Short term effects

These effects are due to exposure of heavy dose

Symptoms

Nausea, vomiting, diarrheoa, hair loss and hemorrhage

Long term effects

These effects are due to frequent exposures of low doses of radiation

Symptoms

Cancer, birth deformities and genetic defects

Thyroid Shields

Radiation Protection

ALARA

As **L**ow **A**s **R**easonably **A**chievable

For The Patient

- Necessary exposure only
- Functionally correct equipment
- Fast speed films (E speed)
- Film holders and beaming devices
- Rectangular Collimation
- Lead Aprons and thyroid shields

Pregnant Women And Children

Caution Is Must

WORKERS (DENTIST AND STAFF)

PROTECTIVE MEASURES INCLUDES:

- **Distance from source of radiation**
- **Equipment**
- **Radiographic technique**

General Public

General public includes:

- people in waiting room
- people in other building rooms
- passer by

Safety measures includes:

- The setting of equipment to ensure that the primary beam is not aimed directly into the occupied rooms
- The thickness/material of the partitioning wall

Digital Radiography

Advantages

- No X-ray film, use of sensor
- No chemical processing, instant image
- Image can be colorized
- Excellent tool for patient education
- Greater patient acceptance
- 50% -90% less radiation than conventional x-ray film
- Ability to zoom, enhance , magnify, store, and electronically send the images
- Easy duplication
- Digital subtraction radiography

Disadvantages

- Expensive technology
- Resolution of image is slightly less than the conventional x-ray film.


Thank you