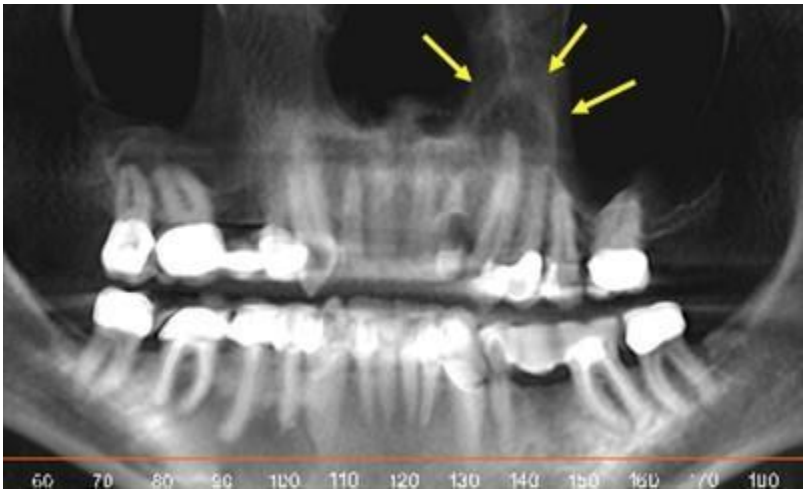
OLD Questions edited

SBQ 1

A 65-year-old woman presented to the dentist with mild, intermittent pain and swelling at the left side of the maxilla, between the left lateral incisor and the canine. The patient stated that the intermittent pain started approximately six months ago. Her last recall appointment was five years ago. The patient's medical history included hypertension, osteoporosis, hypothyroidism, osteoarthritis, and diabetes type 2. She was taking captopril, Glucophage, calcium, and Synthroid, and she reported no allergies. Intra oral examination is within normal limits, except for "swelling" and pain upon palpation between teeth 22 and 23. The vitality of all anterior maxillary teeth was positive, except for tooth 23.The dentist ordered a CBCT scan and noted a radiolucent area at the apex of tooth 23 (yellow arrows).



1 Which of the following is the most likely diagnosis? DM

A. Ameloblastic fibroma
B. Dentigerous cyst
C. Simple bone cyst
D. Nasopalatine canal cyst
E. Lateral periodontal cyst
F. None of the above

Ref-White and pharoah page 343

Non-vitality of 23, presence of radiolucency at the apex of the root of 23, swelling,mild intermittent pain,pain on palpation suggests periapical abscess/cyst/granuloma.

Option A-Ameloblastoma is multilocular,mostly in the mandibular ramus region of the mandible,usually well defined borders, can resorb and displace adjacent teeth.

Option B- Dentigerous cyst is radiolucent lesion around the crown of impacted teeth,usually displaces the involved teeth apically,can displace and resorb adjacent teeth.

Option C-Simple bone cyst /traumatic bone cyst has scalloping borders extending between the roots.Teeth are vital.

Option D-nasopalatine canal cyst occurs in nasopalatine foramen or canal,well define,,asymptomatic or minor symptoms, and developmental cyst,vital teeth

Option E-Lateral periodontal cyst is radiolucent ,found in the lateral aspect of roots,asymptomatic and teeth are vital.

2. The radiology report stated that there is hypo dense lesion, measuring 10 x 8 mm that is well-defined and well-corticated, located at the apex of tooth 23. There is no evidence of root resorption nor displacement.

Based on the radiology report, which of the following is the likely diagnosis? DM

A. Ameloblastoma
B. Dentigerous cyst
C. Unicystic ameloblastoma
D. Idiopathic bone cavity
E. Myxoma
F. Odontogenic keratocyst
G. None of the above

Ref-White and pharoah page 343

well defined,well corticated radiolucent lesion at the apex of the non -vital tooth suggests periapical cyst/radicular cyst

ameloblastoma--Ameloblastoma is multilocular,mostly in the mandibular ramus region of the mandible,usually well defined borders, can resorb and displace adjacent teeth.

dentigerous cyst- Dentigerous cyst is radiolucent lesion around the crown of impacted teeth,usually displaces the involved teeth apically,can displace and resorb adjacent teeth.

unicystic ameloblastoma- unilocular, radiolucency around impacted teeth in posterior mandible and seen in younger individuals.

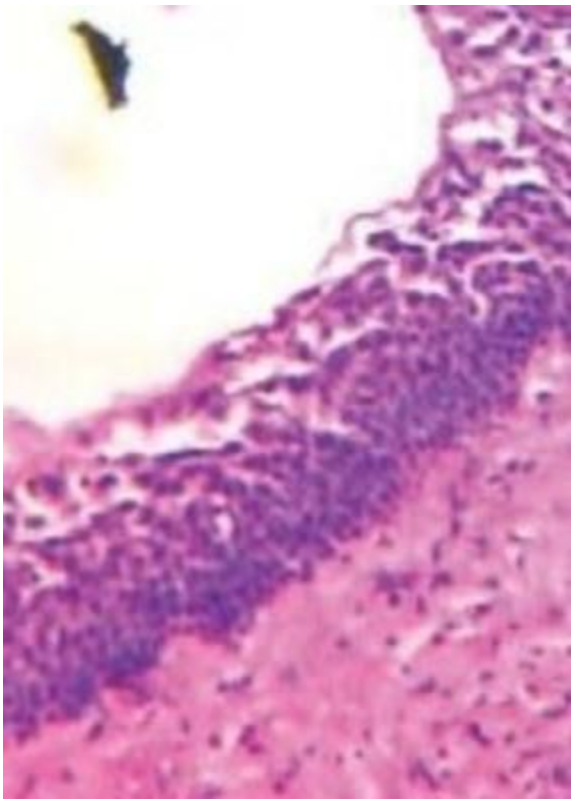
idiopathic bone cavity-scalloped,radiolucent,extending between roots,younger individuals.

Myxoma-radiographically, it can present as a unilocular or multilocular radiolucency with well-defined or diffuse margins, sometimes exhibiting a "soap bubble" or "honeycomb" appearance.

OKC-multilocular radiolucency in posterior mandible,extending antero-posteriorly and swelling is rare.

The patient was referred to an endodontist. A few days later, the lesion was enucleated, and a root canal treatment was completed on tooth 23.
The specimen was referred to an oral pathologist. The histopathology report was available a few days later.

Histopathological report revealed Lined by stratified squamous epithelium of variable thickness, inflammatory infiltrate is present. Rushton hyaline bodies are present.



4. Based on the histopathology findings, which of the following is the diagnosis? DM

A. Ameloblastoma
B. Dentigerous cyst
C. Radicular cyst
D. Odontogenic keratocyst
E. None of the above

Ref-Shafer's oral pathology page 273

Rushton Hyaline bodies,inflammatory infiltrate present in the epithelium indicates it is an inflammatory cyst of odontogenic origin. This is a Radicular cyst,which is formed following pulp necrosis of 23

Option A- Ameloblastoma has, moderately to densely collagenized connective tissue characteristically constitute the stroma. The epithelial component of the neoplasm proliferates in what seems to be disconnected islands, strands, and cords within the collagenized fibrous connective tissue stroma

OptionB- Dentigerous cyst is usually composed of a thin connective tissue wall with a thin layer of stratified squamous epithelium lining the lumen . Rete peg formation is generally absent except in cases that are secondarily infected

Option D- The odontogenic keratocyst wall is usually rather thin unless there has been superimposed inflammation. The lining epithelium is highly characteristic, and is composed of:

A parakeratinized surface which is typically corrugated, rippled or wrinkled.

A remarkable uniformity of thickness of the epithelium usually ranging from 6 to 10 cells thick.

A prominent palisaded, polarized basal layer of cells often described as having a 'picket fence' or 'tombstone' appearance.

The connective tissue wall often shows small islands of epithelium similar to the lining epithelium; some of these islands may be small cysts

5. Based on the diagnosis, the lesion is classified as which of the following? DM

A. Odontogenic cyst
B. Benign tumor
C. Malignant tumor
D. Nonodontogenic cyst
E. None of the above

Ref-Shafer's Oral pathology page 259

As the cyst originated from the necrosed and infected tooth and also the histological examination revealed inflammatory infiltrate and hyaline bodies. It is an odontogenic cyst.

Odontogenic Cysts

Cysts of the jaws can be classified as:

- Odontogenic (arising from tooth-forming tissues)
- Nonodontogenic (developmental or fissural).

The odontogenic cysts are derived from epithelium associated with the development of the dental apparatus.

SBQ 2

A 45-year-old female presents to the dentist with spontaneous pain at the upper right first molar 16 for the last 48 hours. The pain is increasing in intensity. The dentist took a periapical radiograph. No radiographic abnormalities were observed

1. Which of the following is the most likely diagnosis for tooth 16? DM

A. Asymptomatic irreversible pulpitis

B. Pulp necrosis

C. Reversible pulpitis

D. Symptomatic irreversible pulpitis

Ref-Conservative pulp therapies in management of reversible and irreversible pulpitis- ADJ article in endo folder

spontaneous,lingering ,progressive pain is the feature of symptomatic irreversible pulpitis

Table 2. Diagnostic indicators of pulpitis and necrosis

	Reversible pulpitis	Irreversible pulpitis	Pulpal necrosis
Spontaneous pain	Absent	Present	Possible
Sleep disturbance	Absent	Possible	Possible
Pain to thermal stimuli	Possible*	Positive	Absent
Pain lingers to hot/cold	Absent	Present	Absent
Pain relieved by cold	NA	Possible	Absent
Exaggerated pain to EPT	Possible*	Positive	Absent
Tenderness to palpation	Absent	Possible	Possible
Tenderness to percussion	Unlikely†	Possible	Likely‡
Soft tissue swelling	Absent	Absent	Possible
Extraoral swelling	Absent	Absent	Possible
Sinus tract	Absent	Absent	Possible
Periapical radiolucency	Absent	Possible	Likely‡

2. Provided tooth 16 has sound coronal structure enough to restore the tooth and not mobile,What is the management of tooth 16? DM

A partial Pulpotomy

B Root canal therapy

C Oral antibiotics

D Extraction

Ans B

Ref-Conservative pulp therapies in management of reversible and irreversible pulpitis- ADJ article in endo folder

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Irreversible pulpitis: Full pulpotomy is carried out to the orifice level and tissue debris is removed by irrigation with NaOCl, followed by light pressure with a sterile NaOCl soaked cotton pellet. If pulp tissue appears healthy and haemostasis is achieved within 10 min a 1.5–3 mm thick layer of calcium silicate material and permanent restoration can be placed. If haemostasis is not achieved in less than 10 min RCT or extraction should be performed.

3. Which of the following statements is false regarding root canal irrigants? TE

A Chlorhexidine does not cause pain comparable to NaOCl if accidentally extruded to periapical area

B 6% NaOCl has stronger antibiofilm effect than 2% CHX

C Chlorhexidine can dissolve biofilm and organic debris

D Chlorhexidine as a final rinse after EDTA does not cause erosion of dentine as NaOCl does

Ans C

Ref-Guidelines for non-surgical endodontic treatment -ADJ article.

Chlorhexidine (CHX)

- Allergic reactions have been reported.
- CHX poorly removes biofilm, has limited effectiveness against Gram-negative organisms and no tissue-dissolving ability.
- CHX is mostly used at a concentration of 2%.

Ref-Irrigation in endodontics- article

Although many bacteria may be killed by CHX, it cannot dissolve the biofilm or other organic debris. Residual organic tissue is likely to weaken the quality of the seal by

4. What will you do if the root canal sealer has extruded from the canal ? TE

A Do nothing now monitor and observe

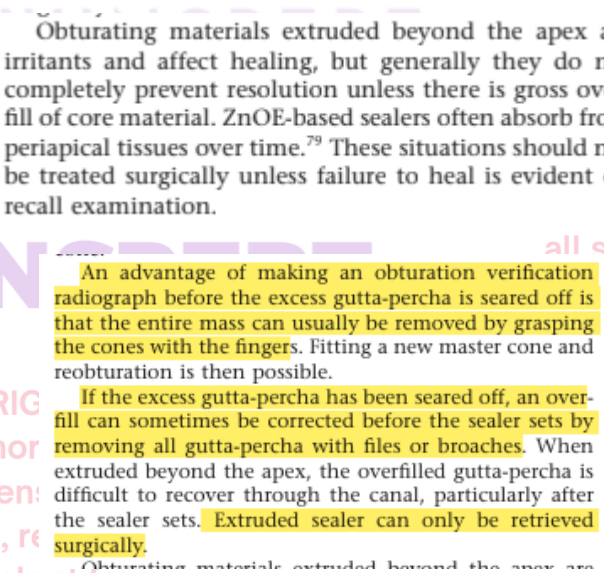
B Repeat the obturation

C Re-instrument the canal

D Periapical surgery

Ans-A

Ref-Walton page 311



Obturating materials extruded beyond the apex are irritants and affect healing, but generally they do not completely prevent resolution unless there is gross overfill of core material. ZnOE-based sealers often absorb from periapical tissues over time.[79] These situations should not be treated surgically unless failure to heal is evident on recall examination.

An advantage of making an obturation verification radiograph before the excess gutta-percha is seared off is that the entire mass can usually be removed by grasping the cones with the fingers. Fitting a new master cone and reobturation is then possible.

If the excess gutta-percha has been seared off, an overfill can sometimes be corrected before the sealer sets by removing all gutta-percha with files or broaches. When extruded beyond the apex, the overfilled gutta-percha is difficult to recover through the canal, particularly after the sealer sets. Extruded sealer can only be retrieved surgically.

Obturating materials extruded beyond the apex are

Option B and C-are ruled out as over extended sealer material cannot be removed from apex by repeat obturation or reinstrumentation of canal.,only GP can be removed during re-obturation.

Option D-is done only when the overextension becomes symptomatic

5. After years, the patient reports back with pain and swelling around 16 regions. The x-ray revealed periapical radiolucency and furcation involvement . The causes of endodontic treatment failure is all except DM

A inadequate obturation quality

B inadequate coronal seal

C the presence of additional untreated canals

D endodontic-periodontal lesions

E none of the above

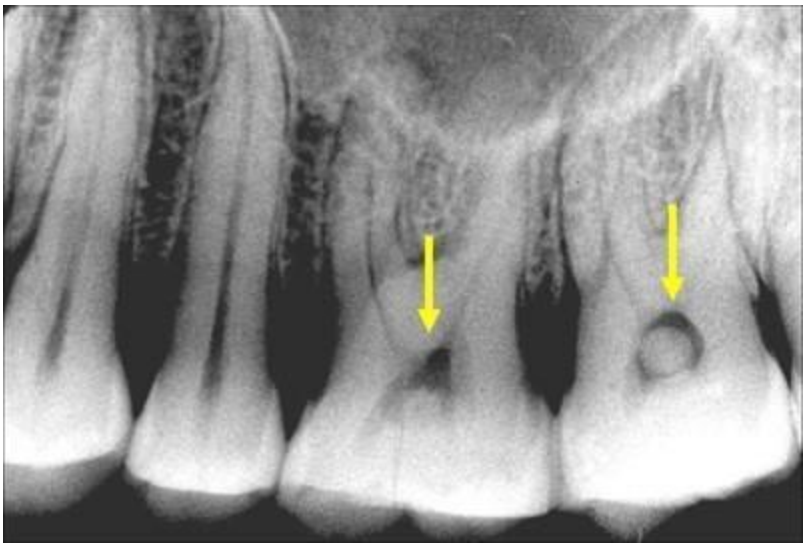
Ans E

Ref-Walton Page 298

Factors may have caused irritation of the periapical tissues and failure. These include (1) loss of or inadequate coronal seal, (2) inadequate débridement and disinfection,(3) missed canals, (4) vertical root fractures, (5) significant periodontal disease, (6) coronal fractures, (7) poor aseptic technique, and (8) procedural errors such as loss of length,ledging, zipping, and perforations.

SBQ 3

A 45-year-old man presented to the dentist for a recall exam. The patient was asymptomatic, and his last dental appointment was six months ago. His past medical history was unremarkable. The dentist ordered bitewing radiographs. Left bitewing is shown below. He noted an unusual finding in the pulp chambers of teeth 26 and 27 (yellow arrows).



1. What is the most likely diagnosis? DM

A. Enamel pearls

B. Dentin pearls

C. Pulp stones

None of the above

Ref-Walton page 219

Calcifications

Calcifications take two basic forms within the pulp: pulp stones (denticles) and diffuse calcifications. Although pulp stones are usually found in the chamber and diffuse calcifications within the radicular pulp, the reverse may also occurs. These calcifications may form either normally or in response to irritation. Pulp stones are often seen on radiographs; diffuse calcifications are visible only histologically.

Option A-these are enamel structures found **on** roots of deciduous and permanent teeth.

o**ption B**-No structure as dentin pearls.

2. The dentist recommended that the patient return in six months for a recall exam. No treatment was indicated. All of the foll regarding diagnosis are true, EXCEPT: TE

A. The most commonly affected teeth are the molars.

B. They can extend into the root canals.

C. They can be present in multiple teeth.

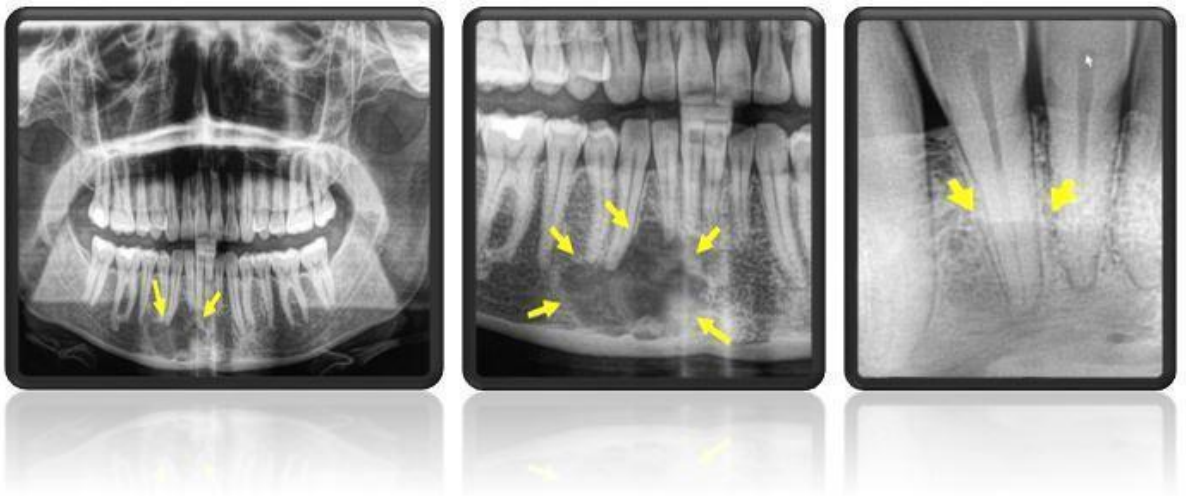
D. Systemic conditions are frequently associated with it

Ref-walton Page 407

Calcifications include denticles (pulp stones) and those that are diffuse (linear). These increase in the aged pulp,14 as well as in the irritated pulp.Pulp stones tend to be found in the coronal pulp, and diffuse calcifications are found in the radicular pulp. It has been speculated that the niduses of calcification arise from degenerated nerves or blood vessels, but this has not been proved. Another common speculation is that pulp stones may cause odontogenic pain; however, this is not true.

SBQ 4

A 37-year-old man presented to the oral surgeon office after being referred by his general dentist. The dentist saw the patient for a regular recall appointment four weeks ago. He ordered a panoramic radiograph and noted a radiolucency at the anterior mandible. He also ordered a periapical radiograph that confirmed the presence of the radiolucent area. The vitality of all the mandibular anterior teeth was normal. The patient was asymptomatic. His past medical history was unremarkable, except that he was a smoker (a pack per day for the last 10 years).



1.Which of the following is the most likely preliminary diagnosis? DM

A. Idiopathic bone cavity

B. Dentigerous cyst

C. Odontogenic keratocyst

D. Ameloblastic fibro-odontoma

E. None of the above

Ref-White and pharoah page 433

These Preliminary diagnosis could be Cemental dysplasia-The involved teeth are vital, and the patient usually has no history of pain or sensitivity. The lesions usually come to light as an incidental finding during a periapical or panoramic radiographic examination made for other purposes. Predilection for anterior mandible and early lesions are radiolucent at the apex of the teeth.

Idiopathic bone cavity- asymptomatic ,scalloped radiolucency commonly found in ramus and posterior mandible.

Dentigerous cyst- radiolucent lesions,commonly found in posterior mandible, around the crown of mandibular or maxillary third molars and canines

OKC-Commonly found in posterior mandible and ramus. It spreads antero posteriorly and usually multilocular in appearance.

Ameloblastic fibro-odontoma:mixed radiolucent and radiopaque lesions found in the posterior mandible region.

2. The oral surgeon consulted with an oral radiologist, who evaluated the radiographs and recommended advanced imaging to better evaluate the lesion. Which of the following is the most likely advanced imaging technique suggested by the radiologist? IG

A. Cone-beam CT (CBCT)

B. Ultrasound

C. Positron emission tomography (PET)

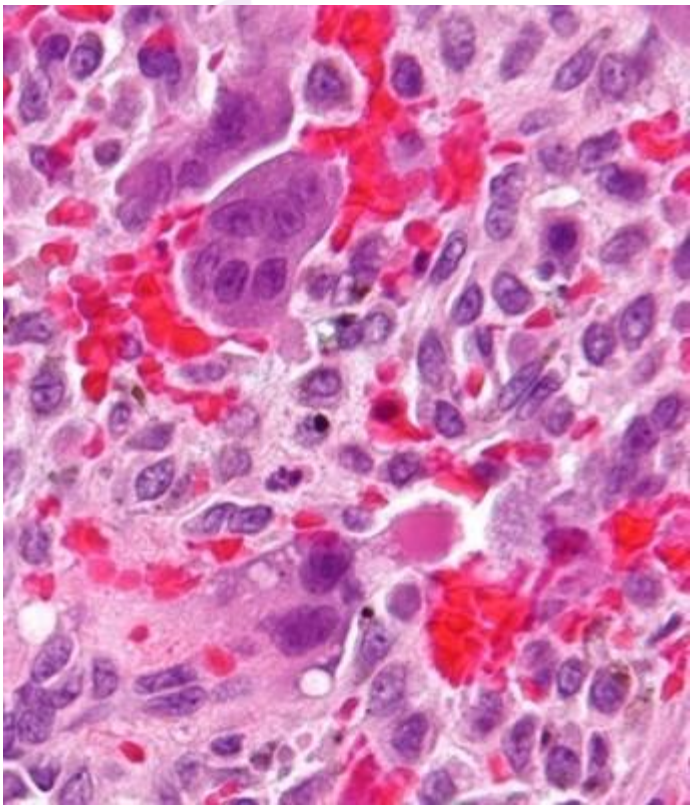
D. Magnetic resonance imaging (MRI)

Ref-White and pharoah page 233

CBCT is the advanced technique which will help in analysing the precise location and extent of bony lesions for planning surgery.

exposure might cause. Currently CBCT is most commonly used in the assessment of pathologic conditions and structural maxillofacial deformity, the preoperative assessment of orthodontics, and in the assessment of available bone for implant placement. It is advisable

3. The histopathology report of incisional biopsy revealed numerous multinucleated giant cells within loose fibrillar connective tissue. Multinucleated giant cells are variable in size and shape containing nuclei ranging from few to 25 in number. Numerous foci of extravasated red blood cells with hemosiderin pigments are seen.



Based on the histopathology findings, what is the most likely diagnosis? DM

A. Idiopathic bone cavity
B. Central giant cell granuloma
C. Ameloblastic fibro-odontoma
D. None of the above

Ref-White and pharoah Page 443

The histologic appearance consists primarily of fibroblasts, numerous vascular channels, multinucleated giant cells, and macrophages.

Option A-is ruled out as it is a pseudocyst and does not contain epithelial lining.

Option c-has scattered islands of epithelial cells in different patterns of cords,strands and primitive mesenchymal connective tissue

4. Which of the following is a treatment for the above diagnosis? TE

A. Surgical resection
B. Intralesional injection of steroids
C. Intralesional injection of calcitonin

D All of the above are potential treatment options

Central giant cell granuloma of the jaws—long-term clinical and radiological outcomes of surgical and pharmacological management;clinical oral investigations 2024 article

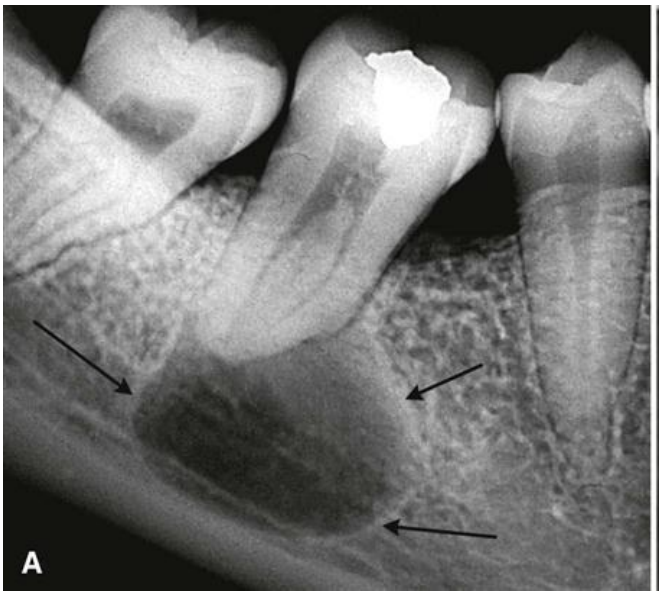
Conventional management of CGCG is surgical(enucleation,curettage or resection) according to the size of the lesion.

intralesional steroids- reduce inflammation and promote healing

calcitonin-inhibit the bone resorption and slowing the growth of CGCG

SBQ 5

46-year-old woman presented to the dentist with pain, swelling, and difficulty opening her mouth. Her last visit to the dentist was eight years ago,during that time she got her first molar extracted due to gross decay and infection..Her medical history included diabetes and hypertension. On clinical examination, mobility of the lower right second molar ,swelling and pain on palpation of the right mandibular alveolar ridge were observed along with trismus,pain and swelling of face. Sensibility test was performed for the second mandibular right molar; which showed no response. No neurologic deficit was noted. The dentist ordered a radiograph and noted a radiolucent area on the right side of the mandible. Her axillary temperature is 37.9 degree celsius.



1.What is your diagnosis ? DM

A Periapical abscess
B Periapical periodontitis
C Radicular cyst
D irreversible pulpitis

Ans A

Ref-White and pharoah page 326,Walton Page 61

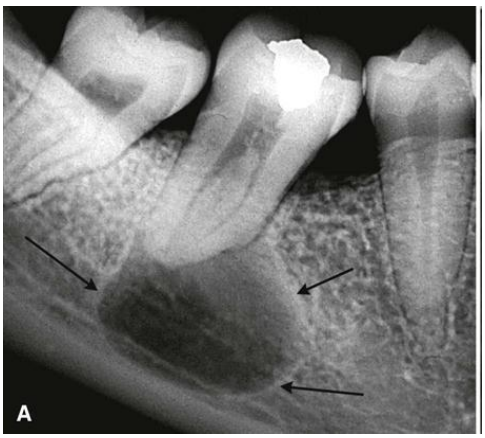
Necrosed second molar (non-responsiveness to sensibility tests) with periapical radiolucency and clinical presentation of mobility of the tooth,swelling and pain on palpation of alveolar ridge on right side indicates periapical abscess.significant Swelling of face with reduced mouth opening indicates spreading odontogenic infection with severe features.

Option B-is ruled out as apical periodontitis will not present as swelling and pain on palpation.

Option C-is ruled out as radicular cyst is a chronic condition,but this lesion is acute.

Option D-is ruled out as irreversible pulpitis presents as either as spontaneous pain or severe lingering pain to sensibility tests, and no periapical involvement.Here the tooth did not respond to a sensibility test.

2.What are the other findings seen in the periapical radiograph? IG



A Cervical burnout in 45
B Dental caries in distal of 48
C Calcified canal in 48
D Root caries in distal of 45

Ans-A

White and pharoah page 152

This phenomenon, is called cervical burnout , is caused by the normal configuration of the affected teeth, which results in decreased x-ray absorption in the areas in question. Close inspection will reveal intact edges of the proximal surfaces. Furthermore, the perception of these radiolucent areas results from the contrast with the adjacent, relatively opaque enamel and alveolar bone.

Option B-is ruled out as the edges are intact

Option C-is ruled out as calcified canals are radiopaque and appear inside the root canal,here itis radiolucent and seen cervical.

Option D-is ruled out as edges are intact.

3.Which of the patient's presenting features indicate urgent referral to hospital ? IG

A Gingival swelling
B Fever
C Trismus
D Medical history

Ans C

The patient is having severe features, that is significant swelling and reduced mouth opening(trismus)-this necessitates hospital referral.

Ref-TG Page 80

spreading odontogenic infection with severe or systemic features (see p.84)	severe features such as significant facial swelling and pain, trismus, neck swelling, difficulty swallowing, difficulty breathing or airway compromise systemic features such as pallor, sweating, tachycardia, an axillary temperature above 38°C [NB1] or sepsis	provide appropriate support of airway, breathing and circulation urgent transfer to a hospital with an oral and maxillofacial surgeon or other appropriate expert surgical intervention and intravenous antibiotic therapy

4.Which of the following sequence of procedures is correct ? DM

A Draining pus by incising ,placing drains ,removing the tooth , IV antibiotics

B IV antibiotics, Pus drainage, placing drains , testing blood samples

C Culture and susceptibility testing, IV antibiotics, addressing the source of infection

D Draining pus by incising ,removing the tooth or addressing the source of infection ,obtaining blood and other samples for culture and susceptibility testing, IV antibiotic therapy

Ans D

Ref-TG Page 85

Management of spreading infection with severe or systemic features involves:

- maintaining a patent airway (do not lie the patient flat)
- resuscitation
- draining pus by incising affected spaces and placing drains
- removing the tooth or otherwise addressing the source of infection
- obtaining blood and other samples for culture and susceptibility testing
- intravenous antibiotic therapy.

5. If the patient is allergic to ceftriaxone we must avoid all of the following except TE

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A Cefotaxime

B Cefazolin

C Cefepime

D Cefuroxime

Ans B

Ref-TG Page 34

- amoxicillin or ampicillin allergy—avoid cefalexin and cefaclor (except in delayed nonsevere hypersensitivity; see Figure 2 [p.32] for guidance)
- ceftriaxone allergy—avoid cefotaxime, cefepime and cefuroxime
- ceftazidime allergy—avoid aztreonam.

6. If the patient was suffering from Ludwig's Angina, which of the following is the most immediate concern ? DM

A. Pulmonary embolism

B. Myocardial infarction

C. Airway obstruction

D. Transient ischemic attack

As ludwig's angina involves sublingual space along with submandibular and submental spaces,the tongue swells and displaces causing airway obstruction.

Ref-TG Page 84

The infection can rapidly become life threatening because of the risk of airway obstruction and sepsis. Ludwig angina is a severe spreading infection involving the bilateral submandibular, sublingual and submental spaces, with cellulitis.

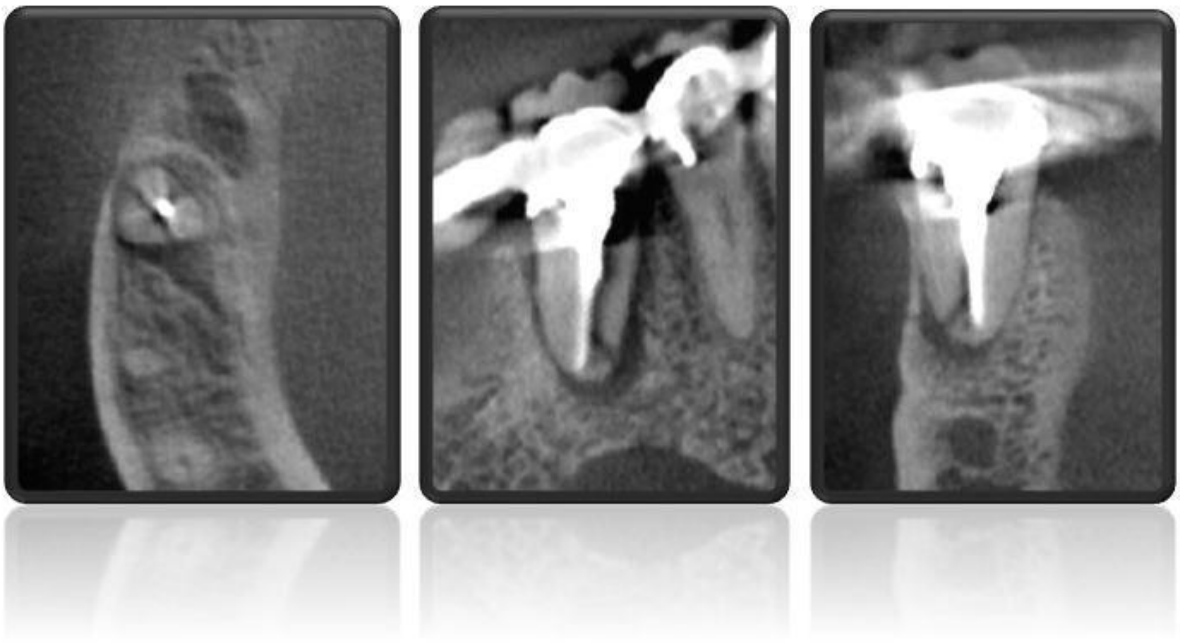
SBQ 6

A 65-year-old woman with the chief complaint of "Pain on my lower right" was referred by a general dentist for evaluation of teeth 44 and 45

Intraoral exam revealed

- Tooth No. 44 is asymptomatic: (-) percussion, (+) cold, (-) palpation.
- Tooth No. 45 is endodontically treated.
- Tooth No. 45: (++) percussion, (-) cold, (+) palpation

Axial, coronal, and sagittal slices of the lesion from tooth 45 cone-beam CT are shown below.



1. The radiographic diagnosis is most consistent with which of the following? DM

A. Vertical root fracture

B. Radicular cyst

C. Atypical odontalgia

D. Osteomyelitis

The CT displays the endodontically treated 45 with post fracture of the root of 45 meisally andJ shaped radiolucency

Ref-present status of vertical root fracture article page 813

Radiographic features of VRF
Early stage VRF
• No obvious change +/– subtle crestal bone loss
• Thickening of the periodontal ligament along axial root wall(s)
Advanced stage VRF
• J-shaped radiolucency
• Halo radiolucency
• (In)complete separation of root fragments

2. Which of the following is the most common clinical feature of above diagnosis? IG

A. Persistent low-level dull pain

B. Pain elicited by pressure

C. History of endodontic treatment

D. All of the above

Ref-present status of vertical root fracture article Page 813

Clinical features of VRF
• +/– symptoms of apical periodontitis (e.g., tenderness to palpation and/or percussion, abscess etc.)
• Direct visualization of a fracture
• Isolated, narrow, deep periodontal pocket
• Presence of a sinus/multiple sinuses
• Mobility

or radiographically. The authors reported that 97% of the detected VRFs were found in root filled teeth, whilst 2.3% were detected in teeth with vital pulps and 0.7% in teeth with non-vital pulps which were not root filled. Similarly,

3. What of the following teeth are most susceptible to this condition? DM

A. Maxillary anterior teeth
B. Mandibular anterior teeth
C. Uncrowned, endodontically treated posterior teeth
D. Maxillary posterior teeth

Ref- Present status of VRF article

Studies assessing the survival of root filled teeth are largely retrospective, cohort and epidemiological in design and provide limited insight into the specific prevalence of VRFs as the cause of failure. Despite this, these studies do facilitate the observation of trends and surrogate relationships. Epidemiological studies on the survival of root filled teeth provide data on very large numbers of teeth, clearly demonstrating the higher survival of root filled teeth restored with cuspal coverage restorations (Lazarski et al., 2001; Salehrabi & Rotstein, 2004). The latter study found that of the 1 462 936 observed root filled teeth, 97% survived for 8 years. However, analysis of the extracted root filled teeth revealed that 85% of these did not have cuspal coverage restorations.

Posterior teeth are significantly more likely to develop a VRF than anterior teeth (Von Arx & Bosshardt, 2017; PradeepKumar et al., 2016). This is most likely because posterior teeth, particularly the last standing molar, are subject to higher functional and non-functional occlusal loading (Hattori et al., 2003; Kumagai et al.,1999). These

4. What is the most common area of fracture in an endodontically treated tooth? IG

A. Clinical crown
B. Cervical third of the root
C. Area of the root where the post terminates
D. Apical third of the root

Ref-comparision of fracture sites and post lengths in longitudinal root fracture- article

Looking at the fracture region in the longitudinal axial direction by tooth type, a fracture originating in the cervical region was significantly ($P = .006$) more common than a fracture originating in the apical region in the maxillary central incisors and canines, with 5–10 times more fractures originating in the cervical than apical region. In the other tooth types, fractures originating in the cervical and apical region were at around the same frequency. Fractures originating in the midregion were extremely scarce, accounting for only 5 of the 304 cases (Table 2). There were no teeth with both fractures originating in the cervical and apical regions.

5. Which of the following radiographic features are consistent with the presence of this fracture? IG

A. Radiolucency around where a post terminates
B. Space between the buccal and/or lingual plate of bone and root surface
C. Disruption of the buccal and/or lingual cortical plate
D. Midroot periodontal bone loss
E. All of the above

Ref-present status of VRF article

All these features are present in the given CBCT image,showing the fracture extension, bone loss around the root and disruption of cortical plate.

6. How is this tooth managed? DM

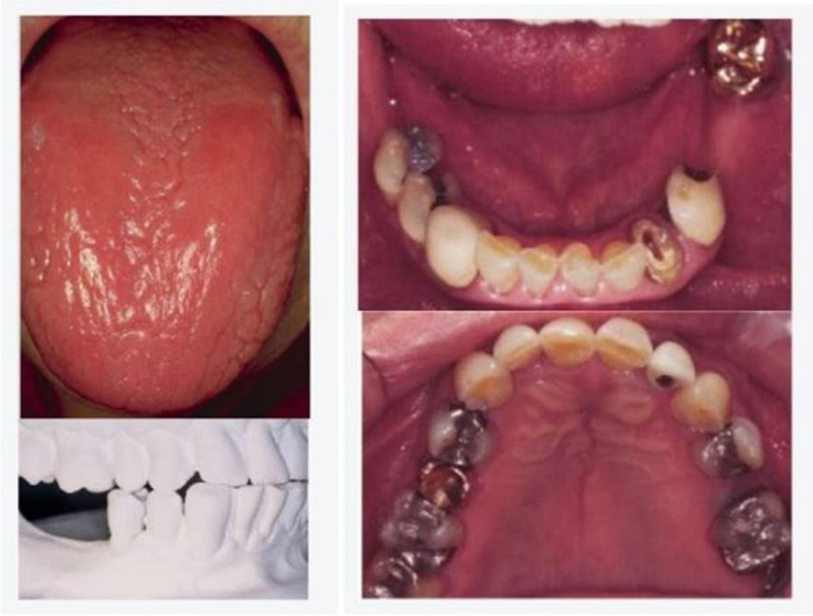
A. Splint therapy
B. Extraction
C. Hemisection, root canal therapy, and crown
D. Coronectomy

Here the tooth is a single rooted,the prognosis is poor so it should be extracted.splinting,Hemisection, RCT and crown are options for posterior teeth

The prognosis of a tooth diagnosed with a VRF is poor (Fuss et al., 2001; Walton, 2017). In the majority of VRF cases, extraction of the tooth is the most predictable treatment of choice.

SBQ-7

A 56 y/o, male says "I haven't been to the dentist in a long time, I want to change my black fillings" . He feels they can cause cancer.He has undergone right hip replacement 8 years ago. Intra oral examination revealed a few compressible lesions of the tongue. Multiple amalgam restorations with recurrent decay. A few teeth were missing in the upper and lower arch.



1.Based on the clinical description of the tongue lesion, all of the following are possible etiological factors of the patient's condition EXCEPT one. Which is the EXCEPTION? IG

A. Tertiary Syphilis

B. Iron Deficiency Anaemia

C. Candidiasis

D. Vitamin D deficiency

Vitamin D deficiency does not cause any lesions on the tongue.Rest all can cause lesions on the tongue,like
Syphilis-ulcers,gummas
Iron deficiency anemia-atrophic glossitis
Candidiasis-erythematous candidiasis,pseudomembranous candidiasis ,chronic atrophic candidiasis.

2.A biopsy performed reveals parakeratosis, elongated rete ridges, and pseudohyphae. The histopathological findings are consistent with which of the following diagnoses? DM

A. White sponge nevus

B. Candidiasis

C. Leukoedema

D. Aspergillosis

Ref-Oral fungal infections-ADJ article in oral medicine

The presence of parakeratosis,rete ridges and pseudohyphae is pathognomonic of candidiasis.

3.how will you manage the patient's chief complaint ? DM

A Remove all the amalgam fillings and replace them with composites

B Remove the amalgam fillings and replace them with indirect composites

C Tell the patient that his amalgam fillings are intact and needs no treatment

D Empathise to the patient's concern and tell him that the effect from mercury in amalgam is very small and removing it will release more vapours

Ans D

Here the chief complaint is "to change all black fillings",first we have to empathise with the patient's chief complaint and tell her that unnecessary removal of all the amalgam fillings will cause more harm as the vapours are toxic to the brain,lungs,kidneys etc.

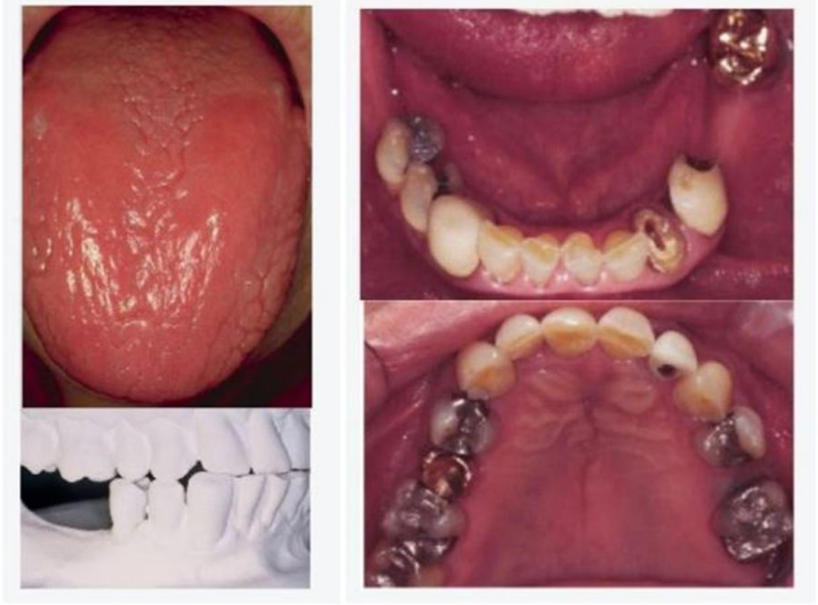
Ref-Mercury exposure and poisoning article by Victoria state government

- **dental fillings** – modern white fillings do not contain mercury. Amalgam fillings contain mercury that when replaced and removed from teeth, increase the risk of mercury exposure from inhaling mercury vapour and swallowing amalgam fragments.

ADA policy statement

2.5. Dental amalgam restorations should not be removed and replaced with alternative restorative materials for non-specific or perceived health complaints unless the patient has been fully informed of the implications of this decision.

4. Tooth 33 was deemed to be non-restorable. After extraction, what is the appropriate Kennedy classification in mandible? DM



A. Class I modification 1

B. Class I modification 2

C. Class II modification 2

D. Class IV modification 1

Ref-Prostho HOT notes page 19,20,21.

unilateral posterior edentulous area on right side and 2 additional edentulous spaces in between 32 and 34- and 34 -37 represents class modification 2.

5. Which of the following is true regarding the desired occlusal scheme during the fabrication of removable partial dentures? DM

A. Bilateral balanced occlusion is the desired occlusal scheme

B. Occlusal harmony is most important in eccentric positions

C. Bilateral balanced occlusion is desired in protrusive movements

D. Occlusal scheme should be in harmony with the existing natural teeth

Option A is in complete dentures

Option B,c -are ruled out as occlusal harmony requires both centric and eccentric movements.

Ref-Prostho hot notes,occlusal schemes

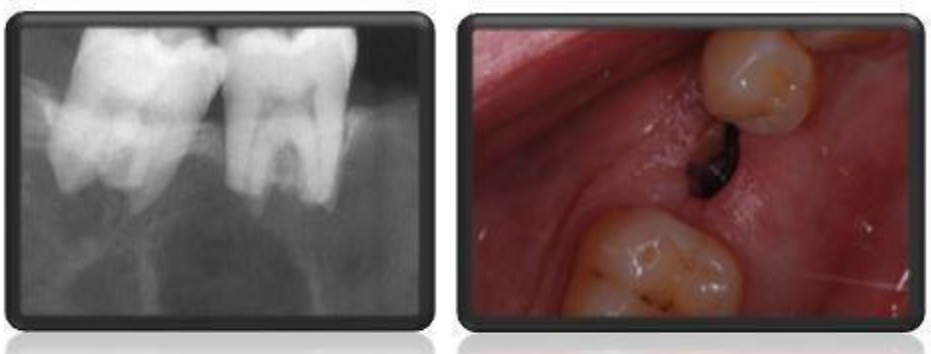
1) Bilaterally balanced occlusion:

- The concept of bilaterally balanced occlusion dictates that maximum number of teeth should contact in all excursive positions of the mandible.
- This requires having a maximum number of teeth in contact in maximum intercuspation and all excursive positions. (Simultaneous contact in centric and eccentric position on both sides)
- In complete denture fabrication, this tooth arrangement helps maintain denture stability because the contact on non-working side prevents the denture from being dislodged. So, it is mostly used in complete denture fabrication.
- In fixed prosthodontics or natural dentition bilaterally balance occlusion is difficult to accomplish and has high rates of failure with increased or accelerated periodontal breakdown.
- Bilaterally balanced occlusion in eccentric positions should be formulated when a maxillary complete denture opposes the removable partial denture. This will improve the stability of denture.

SBQ 8

A 40-year-old man presents with a chief complaint that his "teeth feel high and are getting catfish out of my jaw." Patient is generally healthy, but has not been to a dentist in more than 12 years.Intra oral examination reveals Unhealed extraction site is noted in the area of mandibular right second premolar (extracted 10 years prior -- self-extraction only information given by patient) and Slight expansion of the right posterior mandible is noted. Third molars and mandibular right second premolar are missing.

Left: Mandibular right molar Periapical radiograph and Right: Intraoral clinical photo of extraction site for 45.



1. The radiograph shows which of the following? IG

A. Altered bone trabeculation

B. External root resorption of 46 and 47
C. Internal resorption of 46 and 47
D. A and B
E. A and C

Ref-White and pharoah page 156

The radiograph shows resorption of the roots of molars 46 and 47 and also the normal trabecular pattern is not seen; it is appearing more radiolucent.

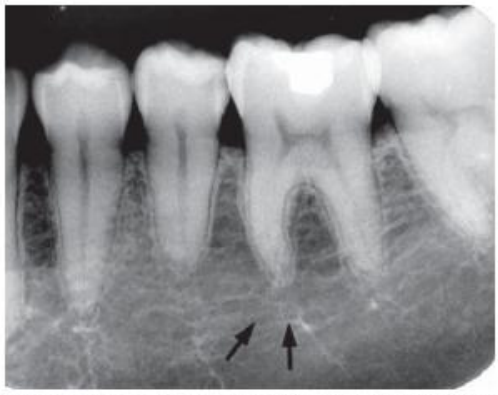


FIG. **10-14** The trabecular pattern in the posterior mandible is quite variable, generally showing large marrow spaces and sparse trabeculation, especially inferiorly *(arrows)*.

2. What imaging exam is recommended after the initial periapical radiograph? IG

A. Panoramic radiograph
B. Cone-beam CT
C. MRI
D. A and B
E. B and C

The loss of normal trabecular pattern and resorption of roots, suggests an abnormality,therefore we need to see the extent of the lesion, status of the rest of the teeth and surrounding structures. so we need to take extra oral radiographs like an OPG or CBCT for a more broader view.

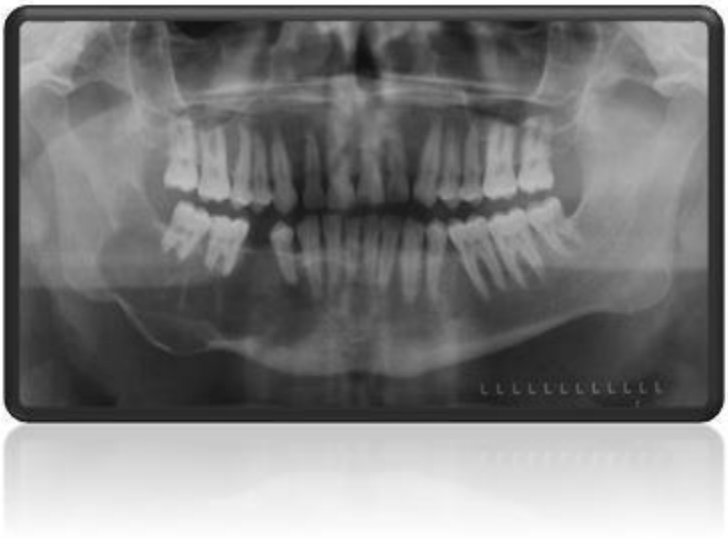
MRI-is more useful for soft tissue analysis than hard tissue

Ref- white and pharoah Page 248

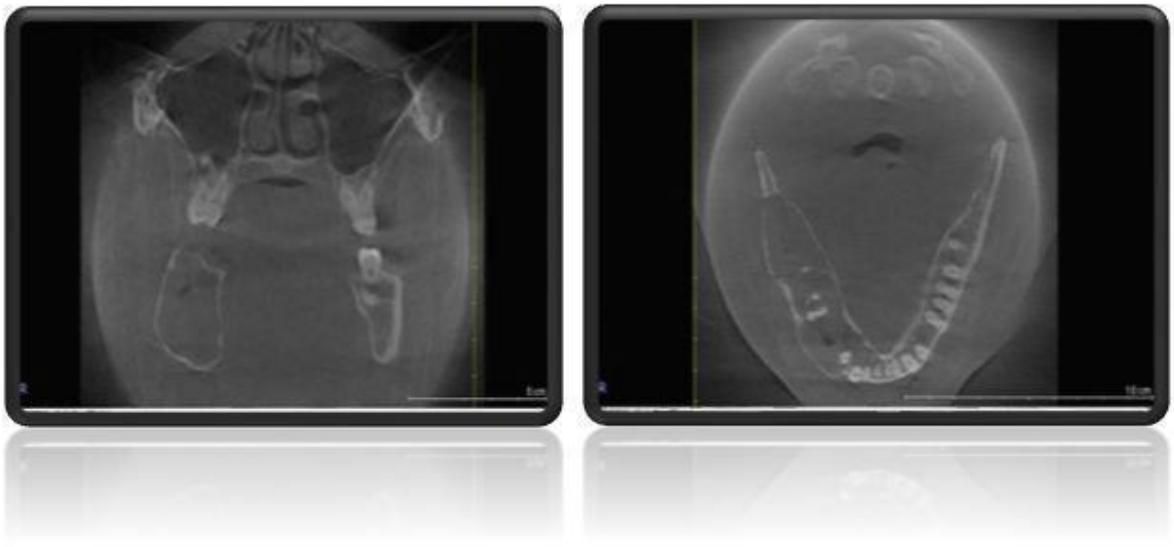
Extraoral Radiographs

Panoramic	Broad	Moderate	1-2	Dental anomalies, occult disease, extensive caries, periodontal disease, periapical disease, TMJ
Conventional tomography/slice	Moderate	Moderate	0.2-0.6	TMJ, implant site assessment
CBCT	Broad	Moderate to high	4-42	Implant, TMJ, craniofacial relationships, dental anomalies, extent of disease, fracture
CT/head	Broad	High	25-800	Extent of craniofacial disease, fracture, implants
MRI	Broad	Moderate	—	Soft tissue disease, TMJ
Skull	Broad	Moderate	30	Fracture, anatomic relation, jaw disease

3. Panoramic radiograph is shown below



Cone-beam CT slices: Coronal view (left) and axial view (right).



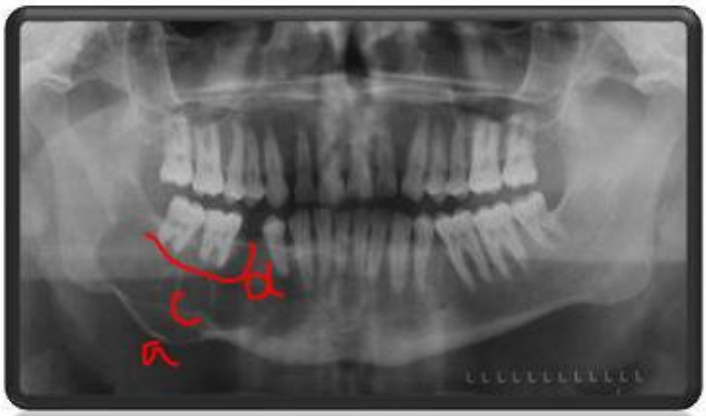
The radiographic description for what is seen on the panoramic radiograph does NOT include which of the following? IG

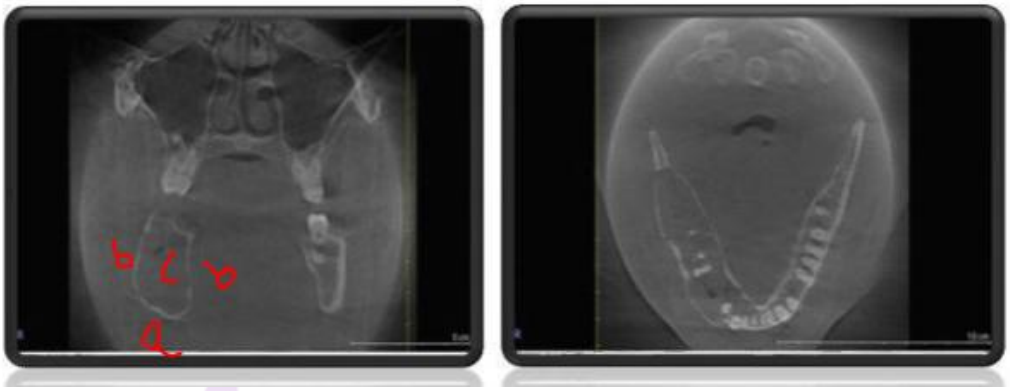
A. Left mandible
B. Well-localized
C. Radiolucent
D. Single lesion
E. Causing resorption of 44, 46, 47

According to the given OPG and CBCT views,lesions are seen on the right side but not on left side.

4 The panoramic radiograph and cone-beam CT show which of the following? IG

A. Displacement and thinning of the inferior border of the mandible
B. Displacement and thinning of the facial and lingual cortical plates of the mandible
C. Radiolucent areas throughout the lesion
D. External resorption of the apex of 44
E. All of the above





5. A differential diagnosis for the lesion includes all of the following, EXCEPT: DM

A. Keratocystic odontogenic tumor (odontogenic keratocyst)
B. Paget's disease of bone
C. Ameloblastoma
D. Hemangioma
E. Radicular cyst

Ref-White and pharoah-Page 447,448

Option B is ruled out as it is rare in jaws and if occurs it is seen more in maxilla than mandible.Coarsened linear trabeculae,bone enlargement and cortical thickening-giving a cotton wool appearance.

OKC-does not cause swelling until it is in advanced stage,it is mostly multilocular and spreads antero-posteriorly,causes thinning of cortical plate,
Ameloblastoma-causes of jaws,thinning of cortical plates,resorption of adjacent structure,it is multilocular.

Radicular cyst-associated with apex of non-vital teeth,well defined radiolucent lesion with cortical borders.

6. It is diagnosed as Keratocystic odontogenic tumor (odontogenic keratocyst). Management of the lesion should include which of the following? DM

A. En bloc resection of the right mandible

B. Extraction of 46 and 47

C. Marsupilisation and curettage

D. All of the above

E. **Band C**

As it is spreading in a wide area in the right jaw,en bloc resection is very invasive.First we have to try conservative management.

Ref-Shafer's Oral pathology Page 266,267

The odontogenic keratocyst should be surgically excised. However, clinical experience has shown that complete eradication of the cyst may be difficult because the wall of the cyst is very thin and friable and may easily fragment. In addition, perforation of cortical bone, particularly in lesions involving the ramus, is common and this complicates total removal.

As this is a large lesion, marsupialization/decompression and curettage is to be performed as a conservative management.

SBQ 9

Ester, a 9 year old female, came to your clinic with his father and he complains that he observed occasional pus discharge from a gumboil in the anterior region of the upper jaw. Father gives a history of an impact trauma and crown fracture of the left maxillary incisor a year earlier. Clinical examination revealed crown fracture and a composite filling on tooth #21. Tooth mobility was within the normal limits. All the teeth in the maxillary anterior region were responsive to cold test, using Endo-Frost cold spray except for tooth #21. There was no traceable sinus tract at the time. Radiography revealed immature root of tooth #21 with a radiolucent Periapical lesion .The diagnosis of necrotic pulp with asymptomatic apical periodontitis was made. You referred the patient to an endodontist and he planned regenerative endodontics.

1. Regenerative endodontics is indicated for a tooth with DM

A. Reversible pulpitis and an open apex

B. Irreversible pulpitis and a closed apex

C. Necrosis and a closed apex

D. Necrosis and an open apex

Ref-Scope of endodontics:regenerative endodontics -AAE Position paper

Glossary of Endodontic Terms defines regenerative endodontics as "biologically-based procedures designed to physiologically replace damaged tooth structures, including dentin and root structures, as well as cells of the pulp-dentin complex.

It includes revascularisation,pulpal regeneration.

Regenerative endodontics uses the concept of tissue engineering to restore the root canals to a healthy state, allowing for continued development of the root and surrounding tissue. Endodontists' knowledge in the fields of pulp biology, dental trauma, and tissue engineering can be applied to deliver biologically based regenerative endodontic treatment of **necrotic immature permanent teeth** resulting in continued root development, increased thickness in the dentinal walls and apical closure. These developments in the regeneration of a functional pulp-dentin complex have a promising impact on efforts to retain the natural dentition, the ultimate goal of endodontic treatment.

2. In comparison to apexification, when performed regenerative endodontics, which of the following is true? TE

A. The canal is not disinfected with regenerative endodontics
B. Revascularization can be completed in a single visit
C. Minimal crown staining is observed with regenerative endodontic procedures
D. Increased root wall thickness is attainable with regenerative endodontics

Ref-Scope of endodontics:regenerative endodontics -AAE Position paper

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3. Which of the following is not the drawback of MTA apexification procedures? TE

A. Length of time required for apical closure
B. Risk of root fracture
C. Patient compliance
D. Esthetics and discoloration

Ref-MTA Composition,properties and clinical applications-International journal of dental materials article 2020

MTA is one of the most promising material to enter the dominion of endodontics in the last few years. MTA is a unique material with various advantages. It has been used successfully in a variety of clinical applications. However, drawbacks, especially high cost, discolouration, difficulty in handling and long setting time cannot be overlooked. Nowadays, Novel Tri-calcium silicate-based materials overcome MTA'S key applications in which it has been used with the recent introduction of new, improved MTA products. MTA based materials are still most widely used because of their superior characteristics and regeneration capacity.

MTA has regeneration potential of PDL and bone,it is used in the treatment of root fractures.MTA does not cause root fractures.

4. All of the following techniques are consistent with apexogenesis except? TE

A. Cvek pulpotomy
B. Indirect pulp cap
C. Direct pulp cap
D. Revascularization

Ref-AAE Position paper in regenerative endodontics

Revascularization is a regenerative endodontic procedure, not apexogenesis procedure.

Unlike traditional apexification or the use of apical barriers, revascularization procedures allow for increase in both the length of the root and root wall thickness.

SBQ 10

Dad brings his 12 year old female daughter with a chief Complaint "My daughter fell on her face from the swings at school". There is no facial trauma and loss of consciousness at the time of fall and she is allergic to Penicillin. There is avulsion of tooth 11 and presented to your clinic 30 minutes after injury with no loss of consciousness or headache. Dad placed the tooth in a container of milk. Also uncomplicated fracture of tooth 21 and lacerated lip is observed.

1. What is the priority in the emergency treatment of this patient? TE

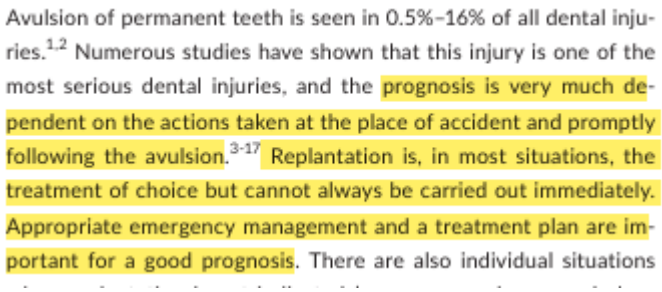
A. Restore fractured tooth with interim restoration to prevent pulpal exposure
B. Assess lacerated lip for remnants of fractured tooth and suture laceration

C. Reimplant and splint tooth 11

D. Perform emergency pulpectomy on tooth 11, replant and splint for 2 weeks

The emergency treatment in this case is reimplantation of avulsed 11 and splinting it,as the prognosis of the avulsed tooth depends on the extra oral dry time(EODT).The shorter the EODTthe better the prognosis.

Ref-IADT guidelines for avulsion



Avulsion of permanent teeth is seen in 0.5%–16% of all dental injuries.[1,2] Numerous studies have shown that this injury is one of the most serious dental injuries, and the prognosis is very much dependent on the actions taken at the place of accident and promptly following the avulsion.[3-17] Replantation is, in most situations, the treatment of choice but cannot always be carried out immediately. Appropriate emergency management and a treatment plan are important for a good prognosis. There are also individual situations

2. Six months after an avulsion injury your patient returns to your office complaining that the tooth appears pink. What would you expect to find on the periapical radiograph? TE

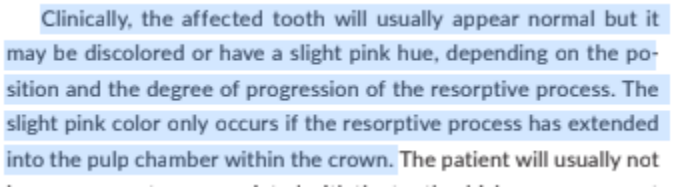
A. Replacement resorption

B. External resorption

C. Internal resorption

D. Inflammatory resorption

Ref-Tooth Resorption-A clinical classification



Clinically, the affected tooth will usually appear normal but it may be discolored or have a slight pink hue, depending on the position and the degree of progression of the resorptive process. The slight pink color only occurs if the resorptive process has extended into the pulp chamber within the crown. The patient will usually not

3. All of the following are indications for periapical surgery in this patient except? DM

A. Calcified canal associated with symptomatic periradicular pathosis

B. Gross overextension of obturating material

C. Biopsy of periapical pathosis

D. Resolve an endodontic treatment failure

Ref-Walton Page 359

Indications

The main indications for PAS are anatomic problems, procedural accidents, irretrievable materials in the root canal, symptomatic cases, and horizontal apical fracture, as well as biopsy and corrective surgery.

Endodontic treatment failures can be treated by RE-RCT,no need of doing periapical surgery.

4. If an avulsed 21 in a 10 year old is replanted after more than an hour since avulsion, which of the following treatments are necessary? TE

A. Reimplant with careful manipulation of root
B. Scaling of root surface
C. Soaking of tooth in doxycycline solution
D. Soaking of tooth in storage medium

Delayed re-implantation requires the tooth to be soaked in a storage medium,until the history taking and examination is done.

Ref-IADT guidelines for avulsion in permanent teeth-page 336

3.2.3 | Extra-oral time longer than 60 minutes

1. Check the avulsed tooth and remove debris from its surface by gently agitating it in the storage medium. Alternatively, a stream of saline can be used to rinse its surface.
2. Place or leave the tooth in a storage medium while taking the history, examining the patient clinically and radiographically and preparing the patient for the replantation.

5. All of the following are appropriate recommendations of the management of an avulsion in a 8-year-old male EXCEPT one. Which is the EXCEPTION? TE

A. Doxycycline 200 mg
B. Soft diet for up to 2 weeks
C. 0.12% chlorhexidine rinse twice a day
D. Check the tetanus status

Ref-TG PAGE 229

doxycycline orally, once daily for 7 days
adult: 100 mg
child 8 years or older and less than 26 kg: 50 mg
child 8 years or older and 26 to 35 kg: 75 mg
child 8 years or older and more than 35 kg: 100 mg

Ref-IADT guidelines for avulsion page 337

1. Avoid participation in contact sports.
2. Maintain a soft diet for up to 2 weeks, according to the tolerance of the patient.[65]
3. Brush their teeth with a soft toothbrush after each meal.
4. Use a chlorhexidine (0.12%) mouth rinse twice a day for 2 weeks.

SBQ 11

A 36 year old patient reported to your clinic with a chief complaint of pain in the lower right back tooth region associated with pus discharge for 1 month. On intra oral examination tooth is vital and periodontal abscess was found to be present in relation to 46 with pocket up to apical third. Radiograph was taken and it showed widening of PDL space and radiolucency in the furcation area. He also mentions that his lower front teeth appears to be bigger than how it used to be before

1. A vital tooth with deep periodontal pocket up to the apical third is starting to have symptoms of acute pulpitis, what is likely etiology? IG

A. Bacteria traveling into the pulp tissue

B. Sensitivity to regional cold and hot stimuli

C. Non-odontogenic pathology

D. Attachment loss in the furcation

Ref-Combined endo-perio lesions(endo-perio juncture)article page page s61

Primary periodontal with secondary endodontic

If marginal periodontitis progresses, attachment loss may expose lateral and accessory canals or even the apical foramen. This can allow bacteria to enter the pulp, resulting in pulp necrosis.[8,13] Such cases appear

2. There are other deeper carious lesions in the patient and you are worried that they are more injurious to the pulp because? IG

A. Increased permeability of dentinal tubules

B. Increased length of dentinal tubules

C. Increased density of dentinal tubules

D. Increased diameter of dentinal tubules

Ref-Combined endo-perio lesions(endo-perio juncture)article page page s57

Dentinal tubules

Dentine is a permeable tissue due to its physical structure. Dentinal tubules potentially form a communication between the pulp and periodontal tissues[14,15]; however, they are normally protected externally by enamel in the coronal part of the tooth and by cementum in the radicular part of the tooth. Under normal circumstances, the presence of these layers has the effect of limiting the permeability of the dentinal tubules at the outer extent of the tooth.

3. All of the following are ideal properties of a root end filling material except? TE

A. Well tolerated by periradicular tissues
B. Easily placed
C. Absorbable
D. Visible radiographically

Ref- Walton page 387 5th edition.

(Fig. 21.23). Root-end filling materials should meet the following criteria:

1. Able to seal well
2. Biocompatible
3. Unresorbable
4. Easily inserted
5. Unaffected by moisture
6. Visible radiographically
7. Capable of regenerating periradicular tissues

4. You planned a submarginal flap design for managing his perio condition. Which of the following is a correct description of a submarginal flap design? TE

A. Ideal for mandibular posterior teeth
B. Results in less scarring
C. Results in less gingival recession
D. Results in less haemorrhage

Ref-Healing of soft tissue after different types of flap designs used in periapical surgery article

Submarginal scalloped flap is formed by scalloped horizontal incision in attached gingival with vertical releasing incisions. Scaplloping corresponds to the contour of the marginal gingiva. There must be an adequate band of attached gingiva present (3-5 mm). This requires a very careful analysis of attachment level along the entire length of the horizontal incision. It is advantageous, that it does not involve marginal or interdental gingiva and therefore does not expose crestal bone, as a result of which the gingival recession is minimized[4]. But its disadvantages are[5]:

SBQ 12

1. Patient has a previous history of orthodontic treatment and asks whether his front teeth size can be corrected in the same way. The tooth movement has which of the following effects on dental pulp? IG

A. Pulpal necrosis with discoloration
B. Increased sensitivity to pulpal testing
C. Reduction of pulpal blood flow during extrusive movements
D. Reduction of pulpal blood flow during intrusive movements

Ref-Walton page fourth edition 27

Intrusion causes compression of blood vessels in the apical region

Orthodontic Tooth Movement

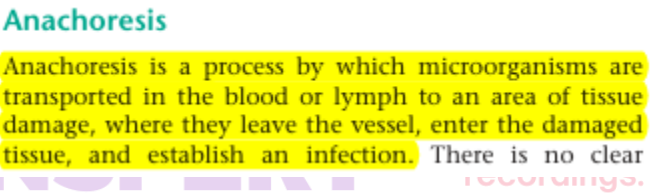
Orthodontic tooth movement of a routine nature does not cause clinically significant changes in the dental pulp. Responses to pulp testing, especially electrical testing, may be unreliable.[61] The heavy forces used to reposition impacted canines frequently lead to pulp necrosis or calcific metamorphosis.[62] Intrusion but not extrusion reduces pulpal blood flow for a few minutes as the pressure is applied.[63] Capillaries proliferate in the pulps of moving teeth.[64] A variety of growth factors are produced, including vascular endothelial growth factor, which may explain this increase in vessels.[65]

2. He read somewhere in a magazine that some people get anachoresis when he is having dental infection. The term anachoresis indicates? IG

A. Artificial formation of an apical barrier
B. Formation of a biological calcific apical barrier
C. Transportation of microorganisms from the blood vessel to damaged tissue

D. Systemic infection resulting from infected pulp tissue

Ref-Walton page 39



Anachoresis

Anachoresis is a process by which microorganisms are transported in the blood or lymph to an area of tissue damage, where they leave the vessel, enter the damaged tissue, and establish an infection. There is no clear

3. You palpate gingiva around 46 when you examine the patient's oral cavity. Palpation is most useful to determine the presence of IG

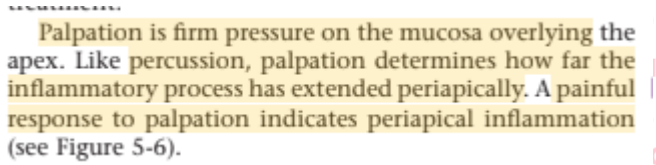
A. Pulpal inflammation

B. Periapical inflammation

C.Periodontal inflammation

D. periapical histology

Ref-Walton Page 76



Palpation is firm pressure on the mucosa overlying the apex. Like percussion, palpation determines how far the inflammatory process has extended periapically. A painful response to palpation indicates periapical inflammation (see Figure 5-6).

SBQ 13

A 67 years old female comes to your clinic with a chief complaint of pain due to cold temperatures". On examination it is revealed that 15 severe lingering pain to cold with no caries or fractures. Periodontal probing gives 6 to 8 mm of pocket depth around 15 and 5 to 9 mm around the posterior teeth. She is type II diabetic and reports deep cleaning four times a year

1.What is the diagnosis for tooth 15 ? DM

A. Primary endodontic disease with secondary periodontal involvement

B. Primary periodontal disease with secondary endodontic involvement

C. Separate and unrelated endodontic and periodontal disease

D. True combined endodontic periodontal disease

Teeth 15 didn't have caries or fractures, and the patient has generalised periodontitis,indicating that it is primary periodon

and secondary endodontic involvement.

Ref-The endodontic -periodontic juncture (combined endo -perio lesions) Page s61

Primary periodontal with secondary endodontic

If marginal periodontitis progresses, attachment loss may expose lateral and accessory canals or even the apical foramen. This can allow bacteria to enter the pulp, resulting in pulp necrosis.[8,13] Such cases appear clinically and radiographically very similar to primary endodontic-secondary periodontal and true combined lesions. It may be that contextual clues are used in such cases to help arrive at the diagnosis; there may be no other obvious cause for the endodontic infection, such as caries or a deep restoration.

2. Long-term prognosis for this patient depends on? DM

A. Successful periodontal treatment
B. Successful endodontic treatment
C. Proper treatment sequencing
D. Proper patient compliance

Ref-The endodontic -periodontic juncture (combined endo -perio lesions) Page s61

Treatment involves addressing both disease entities via periodontal treatment and root canal treatment; however, the prognosis is generally dictated by the severity of the periodontal disease and the patient's response to treatment.[46] The prognosis for such cases is

3. Which of the following is the proper sequence for treating primary endodontic disease with secondary periodontal involvement? DM

A. Scaling and root planing followed by endodontic treatment
B. Endodontic treatment followed by scaling and root planing
C. Endodontic treatment followed by periodontal surgery
D. Endodontic treatment followed by re-evaluation of periodontal status in 2 to 3 months

The endodontic -periodontic juncture (combined endo -perio lesions) Page s61

now self-sustaining. Root canal treatment removes the endodontic infection, but the periodontal bioburden remains. Prognosis now depends on appropriate periodontal intervention, patient compliance with oral hygiene measures and a favourable patient response to treatment.

4. The mesial projection cone adjustment during endodontic treatment is indicated for which of the following? IG

A. Master cone fit of maxillary canine

B. Determine the working length of maxillary molar with second mesiobuccal canal

C. Determine the working length of mandibular molar with second distal canal

D. Master cone fit of maxillary lateral

Mesial projection cone adjustment is used to identify the additional mesio-buccal canal,according to SLOB rule when the cone is projected mesially ,the additional canal can be identified.

Ref-Walton Page 199

The mesial projection is indicated for maxillary and mandibular premolars and for mandibular canine teeth. A mesial projection is used for maxillary molars with a mesiolingual canal(second mesiobuccal canal).

5. Of the following, which tooth or root is most likely to have two canals? IG

A. Maxillary second premolar

B. Mandibular first molar mesial root

C. Mandibular lateral incisor

D. Maxillary first molar mesiobuccal

.**Ref-**

a)second mesiobuccal root canal in maxillary molars—A systematic review and meta-analysis of prevalence studies using cone beam computed tomography article

b)Root anatomy and canal configuration of the permanent mandibular first molar: a systematic review

Mandible-94.4%
Maxilla-69.6%

6. What is the purpose of removing the smear layer during cleaning and shaping? TE

A. Decrease coronal leakage
B. Decrease dentin permeability
C. Increase adaptation of obturating materials
D. Force bacterial out of dentinal tubules

Ref-Walton Page 265

With smear layer removal, filling materials adapt better to the canal wall.[97,98] Removal of the smear layer also enhances the adhesion of sealers to dentin and tubular penetration[97-100] and permits the penetration of all sealers to varying depths.[101] Removal of the smear layer reduces both coronal and apical leakage.[102,103]

7. Most common microbes found in primary endodontic infections are IG

A. Obligate anaerobes
B. Obligate aerobes
C. Facultative anaerobes
D. Facultative aerobes

Ref-Walton Page 41

Primary Intraradicular Infections

Sophisticated culture and molecular biology techniques have revealed the polymicrobial nature of endodontic infections, with a conspicuous dominance of obligate anaerobic bacteria in primary infections. Current evi-

8..One of her IOPA showed Dens invaginatus and is a common anomaly in which teeth? IG

A. Maxillary canines
B. Maxillary laterals
C. Mandibular laterals
D. Mandibular first premolars

Ref-Walton page 224

Dens Invaginatus (Dens in Dente)

Dens invaginatus, which is most common in maxillary lateral incisors,[54] results from an infolding of the enamel organ during proliferation and is an error in morphodifferentiation (Figure 13-15). It often results in an early

9.You planned to restore some of her teeth .Which of the following dental materials has a coefficient of thermal expansion closest to dentin? TE

A. Glass Ionomer

B. Amalgam

C. Composite

D Acrylic resin

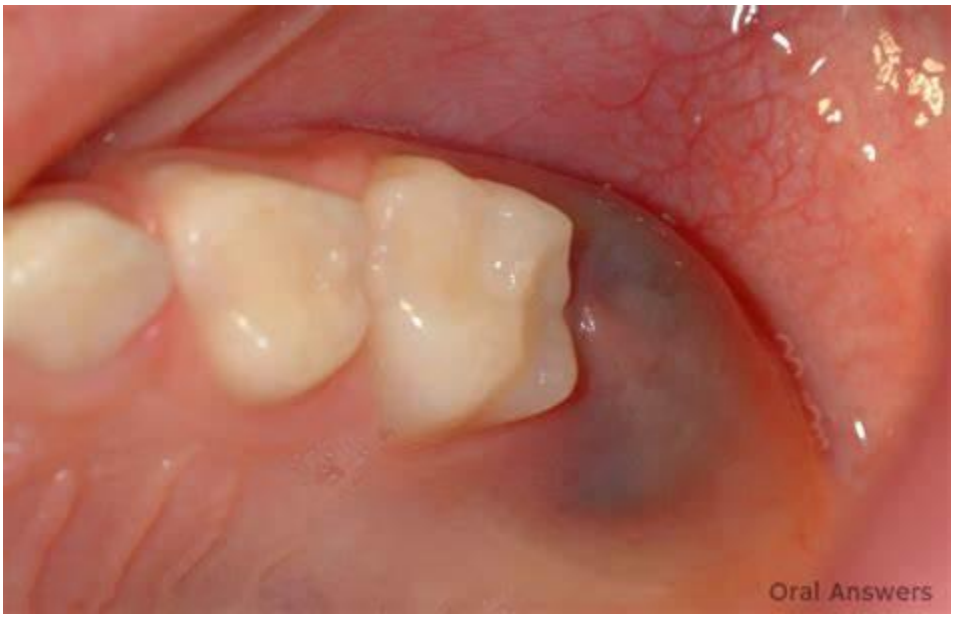
Ref-Operative hot notes-Page 67

iv. Low Thermal Expansion:

- GIC has a coefficient of thermal expansion similar to that of natural tooth enamel. This makes it less likely to cause stress or damage to the tooth structure when exposed to temperature changes.

SBQ 14 Eruption cyst

An 8-year-old girl presented to the pediatric dentist after being referred by a general dentist because of a “blue bump” over the left maxilla. The lesion was observed by her parents while helping to brush her teeth. The patient reported no pain. Her past medical history was unremarkable, and she was not taking any medication and had no allergies. Her extraoral exam was within normal limits. Intraorally she has a fluctuant, painless, bluish mass near the gums of the first primary left maxillary molar.



1. What is the most likely diagnosis? DM

A. Dental abscess

B. Hemangioma

C. Pyogenic granuloma

D. Amalgam tattoo

E. Eruption cyst

Ref-Cameron Page 235

Eruption cyst or haematoma

Follicular enlargement appearing just prior to eruption of teeth. These lesions tend to be blue-black as they may contain blood. They usually require no treatment unless infected. The parents and child should be reassured and the follicle allowed to rupture spontaneously or it may be surgically opened if infected (Figure 10.14).

2. The pediatric dentist explained to the parents the significance of the lesion and the potential treatment options.

Which of the following is a treatment option for eruption cyst? TE

A. Surgical excision

B. Extraction of the primary tooth

C. No treatment

D. All of the above

The patient is 8 yrs old and the eruption cyst is around the maxillary first molar causing delayed eruption,so it should be surgically excised.

3. Which of the following is the MOST common age range when eruption cysts present? IG

A. Between 2 and 5 years old

B. Between 6 and 9 years old

C. Between 10 and 20 years old

D. None of the above

Ref-

Prevalence

Eruption cysts are relatively uncommon. They are more frequently observed in children between the ages of 6 and 9, as this is when the first permanent molars typically erupt.

According to the NCBI publication, eruption cysts are rarely observed in newborns, as tooth eruption at this stage of a child's life is unusual.

SBQ 15

1.A patient is experiencing trismus and pain in the mandibular right first molar. You planned for extraction of it. Which technique is appropriate to anesthetize the patient? TE

A. Local infiltration

B. Gow Gates block

C. Inferior alveolar nerve block

D. Vazirani-Akinosi block

Ref-IAN block techniques-Oral surgery article

3.5. Akinosi Closed-Mouth Technique. The Akinosi closed-mouth mandibular block approach provides an alternate technique for individuals who have limited mouth opening, which is a distinct contraindication for the other block techniques [1, 4]. This technique involves the intraoral insertion of a needle into the pterygomandibular space for ~25–30 mm [18] while the mouth is fully closed. This

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Box 1. General principles of managing oral and dental conditions

- Identify the disease and its cause—establish a diagnosis.
- Provide acute care.
- Address the cause to prevent recurrence.
- Address the effect of the disease.
- Restore normal function.
- Monitor healing.
- Provide ongoing monitoring and management, particularly for chronic or recurrent diseases.

2.Which of the following sequences are correct in the management of a patient? DM

A. Address chief complaint, manage oral infections, reevaluate

B. Manage oral infections, determine definitive treatment plan, maintain

C. Address chief complaint, determine definitive treatment plan, manage oral infections

D. Control oral infections, reevaluate, manage the chief complaint by referring appropriately

Ans A

First, chief complaints should be addressed,including managing acute conditions like infections and reevaluation.

Box 1. General principles of managing oral and dental conditions

- Identify the disease and its cause—establish a diagnosis.
- Provide acute care.
- Address the cause to prevent recurrence.
- Address the effect of the disease.
- Restore normal function.
- Monitor healing.
- Provide ongoing monitoring and management, particularly for chronic or recurrent diseases.

3.Trismus can be managed by all of the following except ? DM

A Active dental treatment

B Physiotherapy

C Full coverage occlusal mouth guard

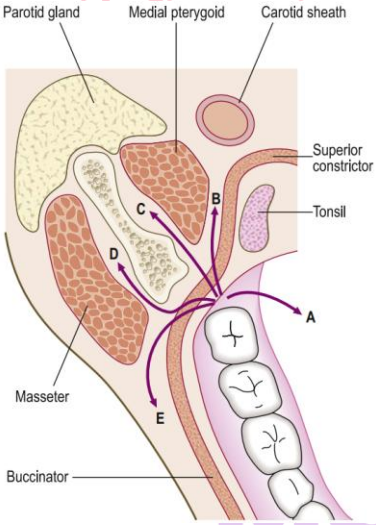
D using passive range-of motion devices.

Ans C

Ref-TG Page 151

Accurately determining the cause of trismus requires a thorough history, examination and, sometimes, imaging. Promptly initiating management can improve outcomes. Management is tailored to the cause, and may include dental treatment, physiotherapy or the use of passive range-of-motion devices.

4. When infection spreads to B, which of the following space is involved IG



A Parapharyngeal

B Pterygomandibular

C Submasseteric

D Buccal space

Ans A

Ref-Odell case 32 page 180

The space between superior constrictor of pharynx and medial pterygoid muscle is called parapharyngeal space(para=next to)

Pterygomandibular=between medial pterygoid and ramus of the mandible

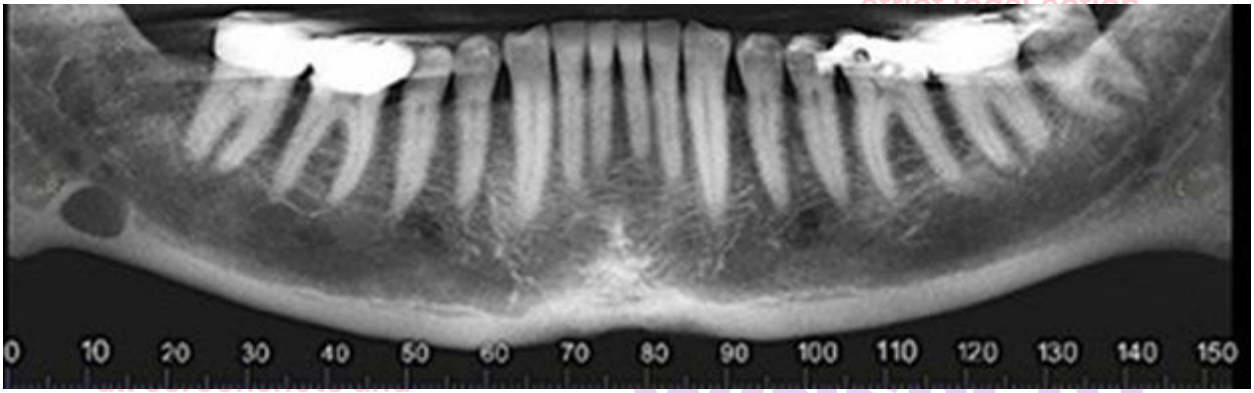
Submassetric space=between masseter and ramus of the mandible.

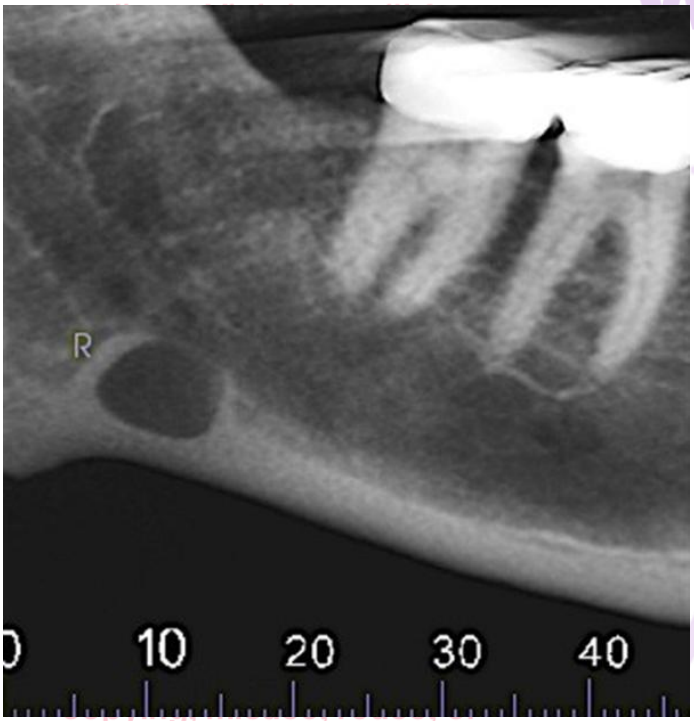
Buccal space-between the skin and buccinator

SBQ 16

A 63-year-old man presented to the oral surgeon after being referred by his family dentist because of an unusual radiolucency at the inferior border of the right mandible. The patient was asymptomatic. His past medical history included hypertension and high cholesterol, and he was taking lisinopril. The extra- and intraoral exams were within normal limits.

The oral surgeon ordered a cone-beam CT (CBCT) exam.





1.Which of the following is the LEAST LIKELY preliminary diagnosis? DM

A. Radicular cyst

B. Idiopathic bone cavity

C. Stafne's defect

D. Tumor metastasis

Here the radiolucency is away from the tooth and the patient is asymptomatic,indicating that it could not be radicular cyst.

Ref-White and pharoah page 343

Radicular cysts are the most common type of cyst in the jaws. They arise from non vital teeth (i.e., teeth that have lost vitality because of extensive caries, large restorations, or previous trauma).Location. In most cases the epicenter of a radicular cyst is located approximately at the apex of a nonvital tooth . Occasionallyit appears on the mesial or distal surface of a tooth root, at the opening of an accessory canal, or infrequently in a deep periodontal pocket.

Rest of all the lesions are radiolucent and away from the tooth towards the inferior border of the mandible.

2.The oral surgeon consulted with an oral radiologist, who provided an interpretation report. The following is from the report:

There is a hypodense lesion (radiolucent) that is well-defined, well-corticated, oval in shape, 8 x 6 mm, located at the posterior right mandible. The lesion is located below the inferior alveolar canal. No expansion is observed in the cross-sectional views. No calcifications are observed inside the lesion.

Based on the images and the radiology report, which of the following is the MOST LIKELY diagnosis? DM

A. Ameloblastoma

B. Cementoblastoma

C. Idiopathic bone cavity

D. Metastasis

E. Stafne bone defect

Ref-White and pharoah page 574

A lingual mandibular bone depression is a well-defined round, ovoid, or, occasionally, lobulated radiolucency that ranges in diameter from 1to 3 cm . The LP defect is located below the inferior alveolar nerve canal and anterior to the angle of mandible, in the region of the antegonial notch and submandibular gland fossa.

Ameloblastoma-is usually a multilocular lesion in the posterior region of the mandible and causes swelling of the jaw.

cementoblastoma-The tumor manifests as a bulbous growth around and attached to the apex of a tooth root.If the root outline is apparent, in most cases various amounts of external resorption can be seen. If large enough, this tumor can cause expansion of the mandible but with an intact outer cortex.

Idiopathic bone cavity- scalloped border between the roots,mostly seen in the mandible.

Metastasis- The posterior areas of the jaws are more commonly affected , with the mandible favored over the maxilla. The maxillary sinus may be the next most common site, followed by the anterior hard palate and mandibular condyle. Frequently metastatic lesions of the mandible are bilateral . Also, lesions may be located in the periodontal ligament space (sometimes at the root apex), mimicking periapical and periodontal inflammatory disease, or in the papilla of a developing tooth.

3.Which of the following is the most likely next step? TE

A. Incisional biopsy

B. Excisional biopsy

C. Prescription of antibiotics

D. Surgical excision of the lesion

E. None of the above

Ref-White and pharoah page 574

Management

Recognition of the lesion should preclude any treatment or surgical exploration or the need for advanced imaging such as CT. The defect may increase in size with time. There are rare reports of salivary gland neoplasms developing in the soft tissue within the defect. Destruction of the well-defined cortex of the defect may indicate the presence of a neoplasm.

4.The oral surgeon explained to the patient the diagnosis and recommended periodic follow-up.

Which of the following statements is true about Stafne bone defects? IG

A. They typically occur in patients between the ages of 20 and 30 years old.

B. Advance imaging (such as MRI or CT) is usually recommended.

C. They most commonly occur in the posterior maxilla.

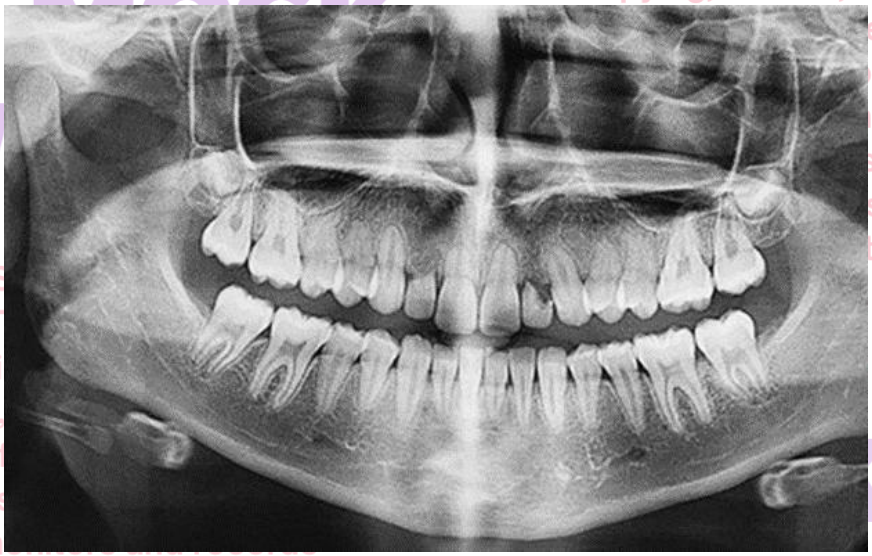
D. None of the above is true.

Ref-White and pharoah page 574

The etiology remains unknown, but the condition is a developmental anomaly that has been documented to develop in patients **as old as 30 years and as young as 11 year**s.Recognition of the lesion should preclude any treatment or surgical exploration or the need for advanced imaging such as CT. The most common location is within the submandibular gland fossa and often close to the inferior border of the mandible.

SBQ 17

A 17-year-old boy presented to the dentist for a new-patient examination. The patient was asymptomatic, and his medical history was unremarkable. After examination, the dentist ordered a panoramic radiograph. The dentist noted severe root resorption on teeth 12 and 22. Panoramic image and a cropped image of the area of interest are shown below.



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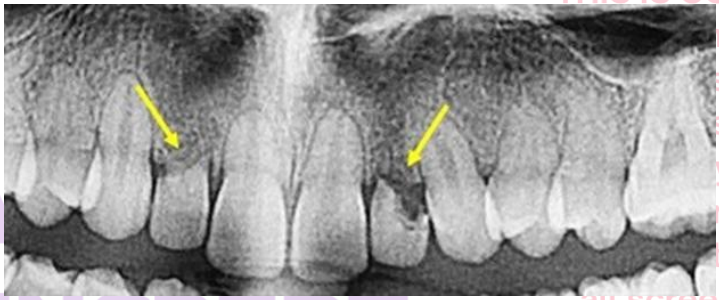


1.What is the diagnosis? DM

A. Idiopathic internal root resorption

B. Idiopathic external root resorption

C. Dental dysplasia

D. Dentinogenesis imperfecta type 1

E. None of the above

There is no presence of any etiologic factor like ortho treatment or trauma,so it is called as idiopathic external root resorption.

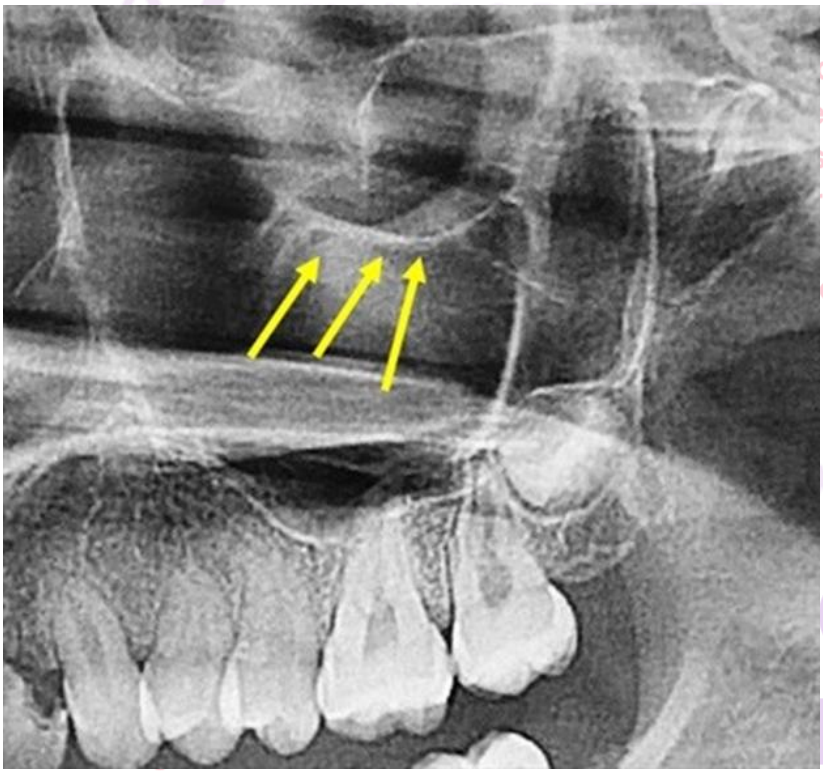
Ref-Tooth resorption-clinical classification page 282

6.8 | Idiopathic resorption

Idiopathic resorption is defined as tooth resorption with no apparent cause—thus the use of the term "idiopathic". This type of resorption has been recognised for many years with Shafer et al.[60] reporting that many permanent teeth may undergo some resorption without any obvious cause. Fortunately, this type of resorption is rare and in most cases it is mild with only a small amount of tooth structure being lost – typically less than 4 mm.[60,61] Typically, this type of resorption involves multiple teeth which have shortened roots (Figure 15) compared to the patient's other teeth. They are also shorter than what would normally be expected for the specific tooth types involved.

Teeth with idiopathic resorption have no history of trauma, orthodontic treatment, radiation treatment or any other obvious cause of the resorption. Multiple teeth are usually involved. In most

2.Another cropped image from the panoramic radiograph is shown below.



The radiopaque line (yellow arrows) is which anatomical landmark? IG

A. Inferior border of the floor of the nose

B. Inferior border of the orbit

C. Lateral border of the maxillary sinus

D. Posterior border of the maxillary sinus

Ref-White and Pharoah page 185

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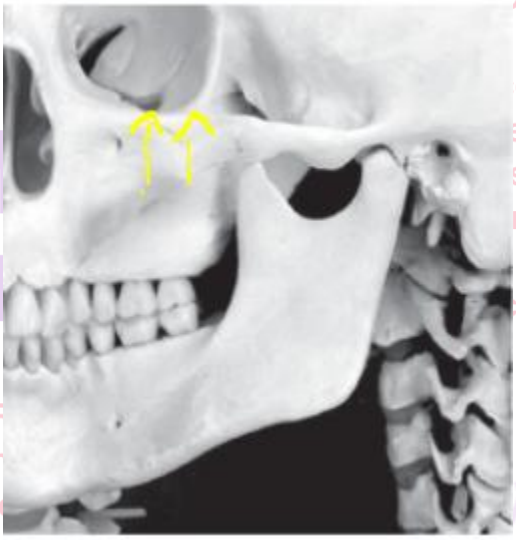


3. The dentist asked the patient about a history of orthodontia, trauma, or anything unusual that may have happened to the front teeth. The patient denied any potential etiology associated with this resorption. Unfortunately, it was not possible to find previous radiographs.

Diagnosis: Idiopathic external root resorption

The dentist advised the patient about the poor prognosis of this condition and the restorative options available once the teeth fell out.

Where are the majority of cases of idiopathic external root resorption located? IG

A. Maxilla

B. Mandible

Ref-Multiple Idiopathic External Apical Root Resorption: A Case Report

which leads to a short and round remaining root. In a recent literature review Cholia, et al. [1] the idiopathic apical root resorptions were found to be more common in the upper jaw and molar region than in the lower jaw and single root teeth; however, root resorption may affect only the 1st molars in all quadrants in a symmetrical pattern. This

4.Which of the following systemic conditions is associated with idiopathic external root resorption? IG

A. Hyperparathyroidism

B. Paget's disease

C. Hypophosphatemia

D. All of the above

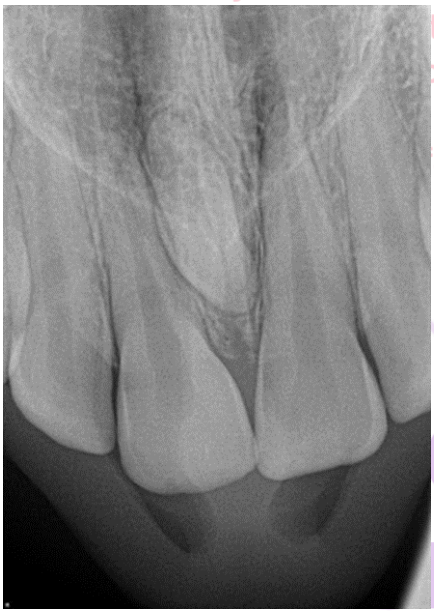
E. Both A and B

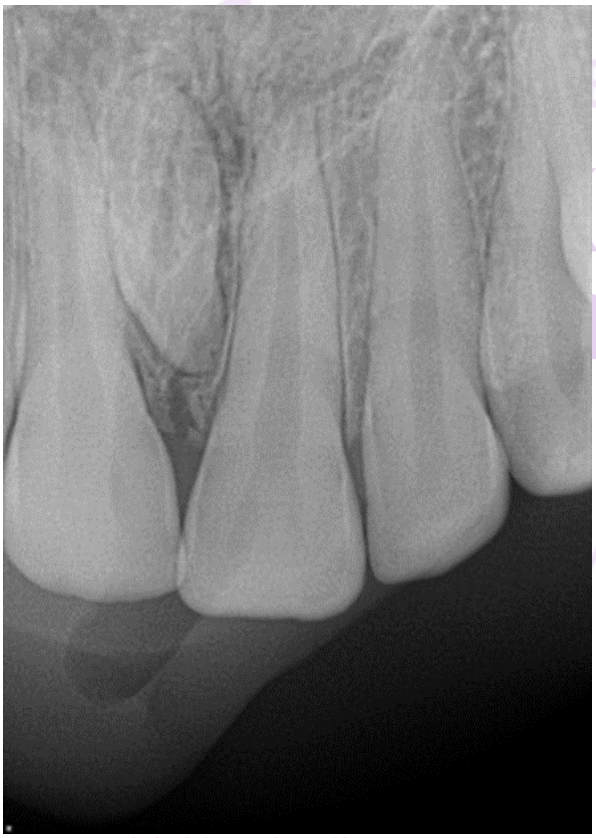
Ref-tooth resorption-clinical classification article

cases, the patient's medical history is unremarkable but there may be some possible systemic associations such as hypoparathyroidism, pseudohypoparathyroidism, Gaucher's Disease, Turner's Syndrome, malnutrition and Paget's Disease. Resorption associated with sys-

SBQ 18: Supernumerary tooth

A 14-year-old girl presented to the dentist for a recall exam. The patient was asymptomatic, and her past medical history was unremarkable.The extra- and intraoral exams were within norm al limits. The dentist ordered selective periapical radiographs. The dentist noted a supernumerary tooth between the central incisors.





1.The name of the supernumerary tooth shown is distodens. IG

A. True

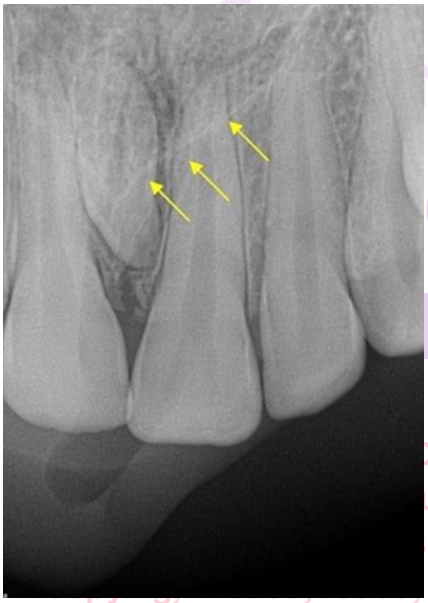
B. False

Ref-White and pharoah page-295

Supernumerary teeth that occur between the maxillary central incisors are termed mesiodens .

Those that occur in the premolar area are peridens, and those found in the molar area are distodens.

2.Which anatomical landmark is indicated by the radiopaque line (yellow arrows)? IG



A. Inferior border of the floor of the nose

B. Anterior border floor of the nose

C. Anterior nasal spine

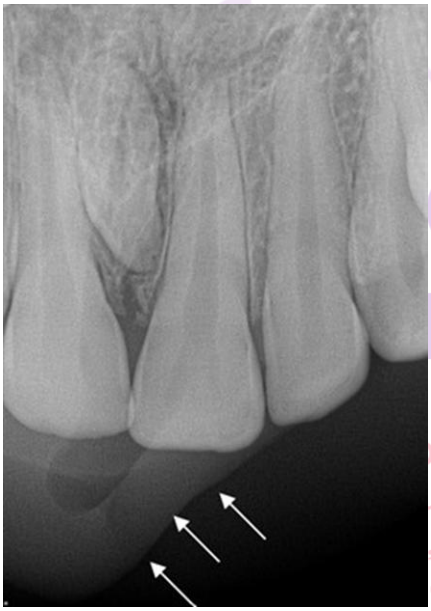
D. Anterior wall of the maxillary sinus

E. None of the above

Ref-White and Pharoah Page-157

On periapical radiographs of the incisors the inferior border of the fossa aperture as a radiopaque line extending bilaterally away from the base of the anterior nasal spine (Fig. 10-18). Above this line is the

3.Which anatomical landmark is pointed by the white arrows? IG



A. Maxillary frenum

B. Soft tissue of the cheek

C. Soft tissue of the nose

D. Soft tissue of the hard palate

Ref-White and pharoah page 159

Nose

The soft tissue of the tip of the nose is frequently seen in projections of the maxillary central and lateral incisors, superimposed over the roots of these teeth. The image of the nose has a uniform, slightly opaque appear-

4.The dentist referred the patient to an oral surgeon for further management. A few weeks later, the oral surgeon evaluated the patient, ordered a small field-of-view cone-beam CT (CBCT) scan and confirmed that the tooth was located lingually. The oral surgeon scheduled the patient for extraction of the mesiodens

The mesiodens in anterior maxilla is usually located IG

A Buccally

B Lingual

C Palatal

D No site preference

Ans C

Ref-Diagnosis and Management of Supernumerary (Mesiodens): A Review of the Literature

Failure of Eruption :The presence of a supernumerary tooth is the most common cause for failure of eruption of maxillary incisors. It has been stated that the tuberculate type of mesiodens more likely causes delay in eruption due to its position, which is mostly located palatally related to the maxillary incisors .

5.What is the most common complication of mesiodens? DM

A. Dentigerous cyst formation

B. Radicular cyst formation

C. Resorption of the roots of the adjacent teeth

D. Delayed eruption of the adjacent teeth

E. None of the above

Ref-White and pharoah-page 295, Diagnosis and Management of Supernumerary (Mesiodens): A Review of the Literature

Failure of Eruption
The presence of a supernumerary tooth is the most common cause for failure of eruption of maxillary incisors. It has been stated that the

SBQ 19 : Oral Mucosal lesion

A 66-year-old man presented to the periodontist with pain and spontaneous bleeding of the upper gums. The patient stated that, because of the pain and soreness, he was not able to perform adequate oral hygiene. Furthermore, he explained that this was not the first time that he has had issues with his gums. In the past 20 years, he had consulted several times with his family dentist about occasional gum pain.The patient's past medical history included hypertension, diabetes type 2, and osteoporosis. He was allergic to amoxicillin. The patient was taking hydrochlorothiazide, and his diabetes was controlled with his diet.The patient had generalized erythema mainly at the maxilla. Gignival recession was observed. No lesions were present at the

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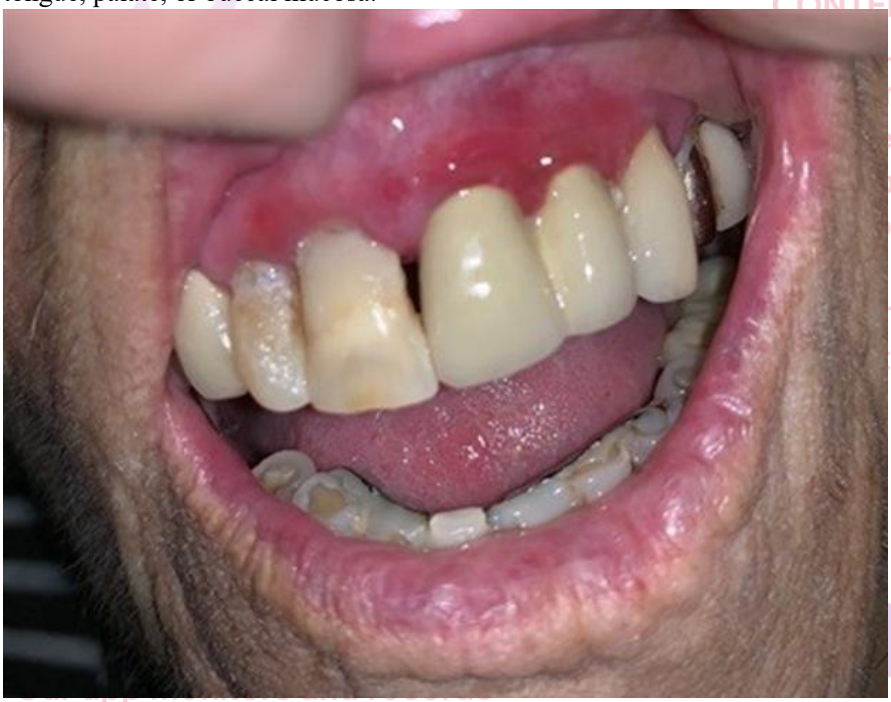
tongue, palate, or buccal mucosa.



Based on the patient's history and the clinical images, please answer the question below.

1. What is the LEAST likely diagnosis? DM

A. Squamous cell carcinoma

B. Recurrent aphthous stomatitis

C. Erosive lichen planus

D. Mucous membrane pemphigoid

E. None of the above

There is no history of the presence of ulcers in the oral cavity. The presence of soreness of gums and spontaneous bleeding is not indicative of RAU.

Ref-TG 107

Recurrent aphthous ulcerative disease is the most common cause of non traumatic ulcers of the oral mucosa.The ulcers usually occur on the mucosa of the cheek, lip and floor of the mouth, but can occasionally affect the mucosa of the gingiva and hard palate.

2. The periodontist referred the patient to a specialist in oral medicine for evaluation and treatment. The specialist conducted a detailed clinical history and intraoral exam. He told the patient that the next step was to perform a biopsy.

Which of the following was the most likely type of biopsy suggested by the oral medicine specialist? PH

A. Excisional biopsy

B. Incisional biopsy

C. Cytology

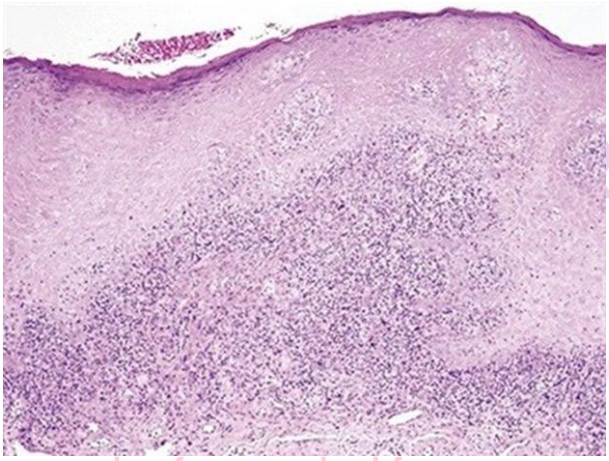
D. None of the above

Ref-Oral cancer article page S94

Broadly speaking, there are 2 types of biopsies that can be employed, incisional and excisional. In almost all situations, an *incisional* biopsy is favoured, at the margin of the lesion with 'normal' tissue, at an adequate depth for the pathologist to assess invasion of

Incisional biopsies are often used when the entire lesion cannot be removed at once, or when a small sample is sufficient for diagnosis. Excisional biopsies are used when the entire lesion is removed for diagnosis or treatment.

3.The oral medicine specialist performed an incisional biopsy of the gums for routine and direct immunofluorescence studies. The following is from the histopathology report.There is intense, band-like infiltrate predominantly of T lymphocytes and degenerating keratinocytes at the epithelium. The direct immunofluorescence was nonspecific.



Based on the histopathology findings, what is the most likely diagnosis? DM

A. Squamous cell carcinoma

B. Recurrent aphthous stomatitis

C. Lichenoid reaction

D. Mucous membrane pemphigoid

E. erosive lichen planus

Ref-TG Page 103

Oral lichenoid lesion

Oral lichenoid lesions (see Photo 9; p.102) are similar in appearance to idiopathic oral lichen planus (see p.101).

Lichenoid mucosal reactions can be caused by:

- contact hypersensitivity to dental restorations
- hypersensitivity reactions to drugs, particularly:
  - drugs that lower blood pressure (eg beta blockers, angiotensin converting enzyme inhibitors, diuretics [particularly hydrochlorothiazide])
  - nonsteroidal anti-inflammatory drugs (NSAIDs)
  - drugs that treat thyroid disorders
- medical conditions:
  - hepatitis C infection, particularly in patients with the human leukocyte antigen HLA-DR6 allele (which is common in people of Mediterranean descent)
  - thyroid disorders
  - chronic graft-versus-host disease.

4.Which of the following is the most likely treatment initiated by the oral medicine specialist? PH

A. Topical use of steroids and referring to GP

B. Topical use of lidocaine

C. Systemic use of steroids

D. Ibuprofen twice a day for five days

E. None of the above

Ref-Oral mucosal diseases article

Management options in secondary care

In secondary care, alternative topical steroids may be prescribed off-label, including potent/very potent steroid ointments, such as clobetasol or fluocinolone.[52] Topical steroids ointments may be applied to the gingivae via custom-made trays. A systematic review found

Suspected lichenoid drug reactions should be referred to secondary care for diagnostic confirmation and liaison with the prescribing physician regarding drug substitution where appropriate. Drugs from a similar class can be expected to cause a reaction.[27]

5. In addition to topical ointments, which of the following is important in management of this lesion ? DM

A Warm saline rinses

B improving oral hygiene

C Sodium bicarbonate mouth gargle

D Lignocaine mouth rinse

Ans B

Ref-TG Page 101

First line treatments

Asymptomatic OLP/OLLs do not require treatment (other than consideration to removal of suspected trigger in OLLs). Mild symptoms may be controlled by avoidance of substances that exacerbate symptoms, for example, strongly flavoured foods and sodium lauryl sulphate-containing oral hygiene products. Oral hygiene and control of periodontal disease is critical, particularly in patients presenting with desquamative gingivitis.

SBQ 20: Fracture

1. A 24-year-old male patient presents to the ER with a left condylar fracture. Upon opening, which side do you suspect his mandible will deviate to and what muscle is this deviation due to? IG

A. Left; contralateral pterygoid

B. Left; ipsilateral lateral pterygoid

C. Right; contralateral lateral pterygoid

D. Right; ipsilateral lateral pterygoid

Since the fracture is on left side and right side is working normally, the deviation of the jaw is towards the left side

Ref-Diagnosis and management of mandibular condylar fractures

a. Unilateral condylar fracture:

- Swelling over the temporomandibular joint, may be associated with hemorrhage from the external ear (due to laceration of external acoustic meatus by the violent impact of condyle on the skin).
- Proper examination with an autoscope/auriscope is essential to differentiate bleeding from external auditory canal and middle ear. Temporal bone may be accompanied by cerebrospinal fluid leak which is termed as otorrhea.
- Hematoma surrounding the fractured condyle
- Hematoma in the mastoid region called the Battle's sign
- If the condylar head is displaced medially, characteristic hollow in the region of condylar head can be observed once the edema subsides.
- Ear bleed will persist if the head of the condyle is impacted in the glenoid fossa.
- Deviation of mandible toward the side of fracture
- Decreased range of movements, pain and deviation toward the contra-lateral side while mouth opening.

2. Which of the following is not an elevator muscle of mandible ? IG

A Medial pterygoid

B Lateral pterygoid

C Masseter

D Temporalis

Ans B

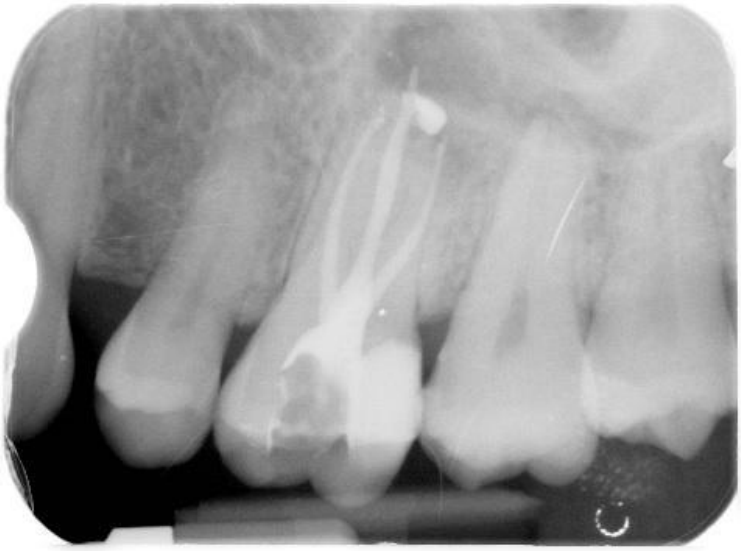
Lateral Pterygoid

The lateral pterygoid muscle is the primary muscle of the inferior temporal fossa. The lateral pterygoid has two parts: an upper head and a lower head. The origin of the upper head of the lateral pterygoid muscle is the inferior temporal surface of the greater wing of the sphenoid bone. The lower head originates from the lateral aspect of the lateral pterygoid plate of the sphenoid bone. The lateral pterygoid muscle fibers converge inferiorly, forming a tendon that inserts on the pterygoid fovea of the neck of the condylar process of the mandible, along with the articular disc and capsule of the temporal-mandibular joint. The lateral pterygoid muscle functions as the sole muscle of mastication to causes depression of the mandible. That being the case, depression of the mandible is largely the result of gravity. It also assists with protrusion and side to side movement of the mandible.[6]

SBQ 21: Endo related

A 50-year-old female patient has pain from a root-treated tooth. The patient is complaining of discomfort from an upper left posterior tooth. The filling was lost from the tooth about 4 months ago. She has suffered intermittent problems since the tooth was root canal treated 2 years ago. Pain is triggered by biting on the

tooth, and changes in temperature have no effect. The symptoms have remained similar in intensity ever since the root canal treatment was completed



1.A peri-apical radiograph of tooth 26 is taken with the cone beam angled at the mesial two roots are visible. Which of the following would be true about the radiograph? IG

A. The buccal root is seen on the mesial

B. The buccal and palatal roots are malposed and no distinction is evident

C. The palatal root is seen on the mesial

D. The palatal root is seen on the distal

According to the SLOB rule,since the palatal root is on the palatal side ,when the cone is shifted to the mesial side,the palatal root also appears mesial.

Same Lingual Opposite Buccal

Ref-Walton-Page 190

SLOB Rule

As the cone position moves from parallel, whether toward the horizontal or toward the vertical, the objects on the film shift away from the direction of the cone (or in the direction of the central beam). In other words, when two objects and the film are in a fixed position and the radiation source (cone) is moved, images of both objects move in the opposite direction (Figure 11-9). The facial (buccal) object shifts farthest away; the lingual object shifts less. The resulting radiograph shows a lingual object that moved relatively in the same direction as the cone and a buccal object that moved in the opposite direction.[21] This principle is the origin of the acronym SLOB (same lingual, opposite buccal) (Figure 11-10).

2.What is the radioopaque structure seen beyond the apex ? IG

A Sealer and gutta percha

B Gutta percha

C Foci of calcifications

D Artifact

Ans A

The radioopaque structure seen beyond the apex could be due to extrusion of sealer and GP.

Ref-Walton Page 300

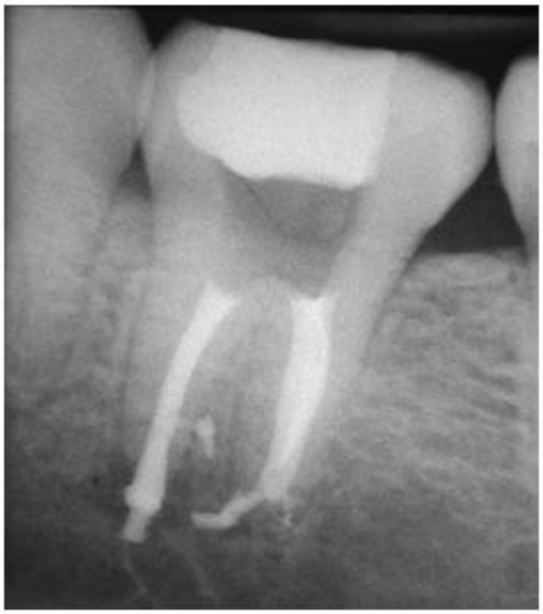


Figure 17-2 Overfill of both mesial and distal canals. Lack of apical resistance and retention form (no apical matrix) permitted the extrusion of the gutta-percha/sealer mass.

3 Which of the following paved way for reinfection in this case TE

A Incomplete obturation

B extruded material
C lack of coronal seal
D incomplete debridement

Ans C

Ref-Walton Page 289

CORONAL SEAL

Eliminating bacteria from the canal space and preventing reentry are crucial to healing. The coronal seal is an essential component of bacterial control, both during and after treatment. The restoration (both temporary and definitive) provides the coronal seal.

Coronal leakage is a major cause of failure.[23,24] Even a well-obturated canal with appropriate use of sealer cement does not provide an enduring barrier to bacterial penetration.[25,26] Exposure of obturating materials to oral fluids through a lost restoration, marginal discrepancy, or recurrent caries leads eventually to sealer disintegration and bacterial contamination of the canal system, with subsequent apical pathosis.

4 How is Gutta percha cleaned before use ? PH

A three-minute immersion in a sodium hypochlorite solution with a concentration between 6.25%.

B one-minute immersion in a sodium hypochlorite solution with a concentration between 1.0 and 5.25%.
C One - minute immersion in Glutaraldehyde solution at concentration of 5%

D three-minute immersion in a Glutaraldehyde solution with a concentration between 6.25%.

Ans B

Ref-ICG Page 73

9. Gutta percha points

Immediately prior to use, gutta percha points can be disinfected on the bench by one-minute immersion in a sodium hypochlorite solution with a concentration between 1.0 and 5.25%. This

5 Hand operated endodontic files are ? PH

A disinfected with enzymatic agents

B Reprocessed in steriliser

C Disposed into sharps container

D disinfected with Chlorhexidine gluconate

Ans C

Ref-ICG Page 73

10. Hand-operated endodontic files

All hand endodontic (root canal) files used in root canal treatment (regardless of their metallurgical composition) are single-use items. They are to be disposed of into a sharps container at the end of the appointment. Reprocessing hand files is not practicable as manual or mechanical cleaning is ineffective and unsafe, and likely to result in a sharps injury. Rotary (engine-driven) stainless-

SBQ 22 :

A 7 y/o girl was brought to you clinic by her mother· She complained "My daughter's front teeth don't come together"·The child has a history of asthma , no recent severe episode of asthma attack. She takes montelukast 5 mg tablets and albuterol . Patient is allergic to peanuts and penicillin. Intraoral exam revealed a 3 mm anterior open bite. There was also a single, circular, flat, 3 mm, brown lesion on soft palate

1.Which of the following features are consistent with a thumb sucking habit? IG

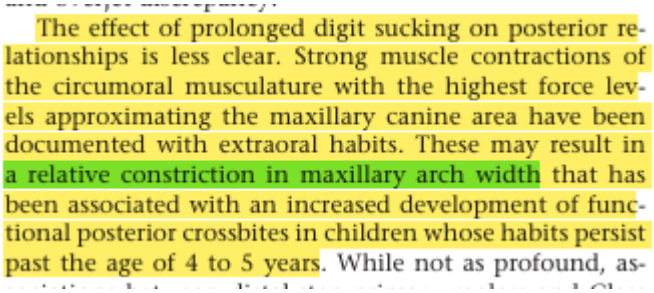
A. Upward positioning of mandible to accommodate thumb

B. Constriction of the maxillary arch due to negative pressures

C. Supraeruption of posterior teeth

D. Vertical elevation of tongue towards maxillary posterior teeth

Ref-Mc.Donald Page 438



The effect of prolonged digit sucking on posterior relationships is less clear. Strong muscle contractions of the circumoral musculature with the highest force levels approximating the maxillary canine area have been documented with extraoral habits. These may result in a relative constriction in maxillary arch width that has been associated with an increased development of functional posterior crossbites in children whose habits persist past the age of 4 to 5 years. While not as profound, as-

2. All of the following features are consistent with thumb sucking habits EXCEPT? IG

A Narrow width dimension of maxillary arch

.

B Protruding teeth

.

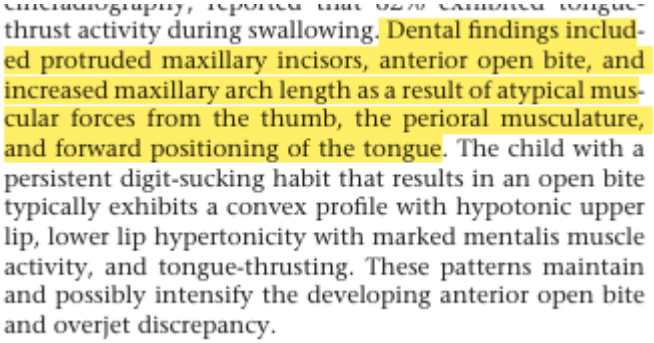
C Separation of lips at rest

.

D Impeded eruption of posterior teeth

.

Ref-MC Donald Page- 438



thrust activity during swallowing. Dental findings included protruded maxillary incisors, anterior open bite, and increased maxillary arch length as a result of atypical muscular forces from the thumb, the perioral musculature, and forward positioning of the tongue. The child with a persistent digit-sucking habit that results in an open bite typically exhibits a convex profile with hypotonic upper lip, lower lip hypertonicity with marked mentalis muscle activity, and tongue-thrusting. These patterns maintain and possibly intensify the developing anterior open bite and overjet discrepancy.

3.Which of the following is a habit breaking appliance ? TE

A Tongue crib

B Quad Helix

C Mandibular acrylic inclined plane

D Hyrax expander

Ref-Mc Donald Page 438

cular patterns. A palatal crib appliance that prevents the offending digit from being placed in the sucking position and acts to restrain the tongue from forward positioning is a valuable adjunct in habit therapy during the mixed-dentition years (Fig. 22-29). Palatal crib designs generally

Option B-for maxillary arch expansion

Option C,D-for directing the lingually placed upper anteriors to normal bite position .

4. The mother reports that the child is taking Montelukast, which of the following describes the class of medication? TE

A Selective B2 adrenergic agonist

E Leukotriene receptor block

C Low dose inhaled corticosteroid

D Mast cell stabilizer

Ref-NHS Public

Mechanism of Action Go to:

Montelukast (empirical formula C35H35ClNNaO3S) is a highly selective leukotriene receptor antagonist that binds with high affinity to the cysteinyl leukotriene receptor for leukotrienes D4 and E4. These leukotrienes are excreted by various cells, such as mast cells, and are involved in the inflammatory process that may cause asthma and allergic rhinitis signs and symptoms. Leukotriene receptors are found in airway cells, such as macrophages and smooth muscle cells. When bound to leukotriene receptors, montelukast inhibits leukotriene physiologic effects (such as airway edema, smooth muscle contraction, and impairment of normal cellular activity) without exhibiting any agonist activity. In asthmatics, low doses of montelukast (5 mg) induce a significant inhibition of bronchoconstriction caused by leukotriene D4. Furthermore, in a

5.What is the most likely diagnosis of the palatal lesion? DM

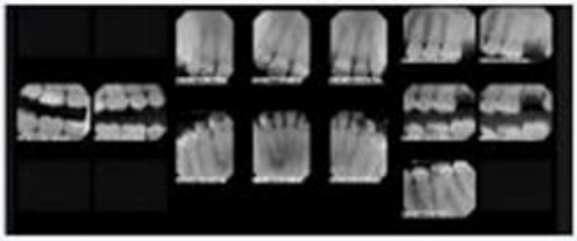
- Hemangioma
- Melanoma
- Oral melanotic macule
- Amalgam tattoo

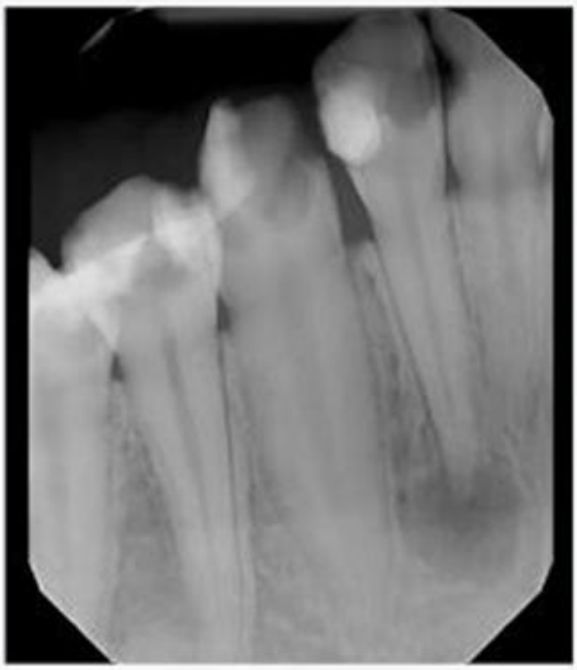
Ref-Shafer Page 24

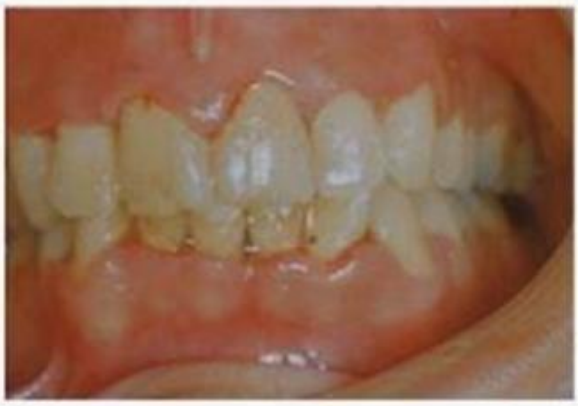
The typical macule is a well-demarcated, uniformly tan to dark brown, asymptomatic, round or oval discoloration less than 7 mm in diameter. The lesion is not thickened and has the same consistency as surrounding mucosa. It tends to have

SBQ 23 :

38 y/o, Female complained saying that her gums hurt a lot, and she feels a bad metallic taste in my mouth. Patients exercise regularly . She is hypertensive ,her blood pressure is 137/84. Necrotic ulcerations were seen on the marginal gingiva, blunted interdental papillae,pain, tenderness and spontaneous bleeding from gingival tissues







1.Considering the patient's diagnosis, which of the following underlying diseases are you suspicious of? DM

A. HIV infection

B. Crohn's Disease

C. Ulcerative Colitis

D. Syphilis

HIV causes immune suppression resulting in opportunistic infections,like fusospirochetal necrotising ulcerative periodontal diseases

Ref-Carranza 12th edition page 166

Necrotizing Periodontal Diseases

Necrotizing periodontal diseases (Figure 8-41) present as acute inflammation of the gingival and periodontal tissues that is characterized by the necrosis of the marginal gingival tissue and the interdental papillae. Clinically, these conditions are often associated with stress or HIV infection. They may be accompanied by malodor and pain and possibly systemic symptoms, including lymphadenopathy, fever, and malaise. Microbiological studies

2. At follow-up, the patient presents with extensive gingival involvement, fever and lymphadenopathy. What antibiotic is appropriate in the management of this patient? TE

A. Metronidazole

B. Erythromycin

C. Doxycycline

D. Azithromycin

Ref-TG Page 74

For antibiotic therapy of necrotising gingivitis, use:

metronidazole 400 mg orally, 12-hourly for 3 to 5 days.

3.Failure of treatment in ANUG is usually due to? DM

A Inadequate debridement

B Ineffective antibiotic
C Ineffective analgesic
D Quitting smoking

Ans A

Ref-TG Page 75

A poor response to treatment or recurrence of symptoms is usually due to inadequate debridement or a lack of improvement in oral hygiene, rather than an ineffective antibiotic regimen. If the infection has not responded to appropriate management (complete debridement, antibiotic therapy, improved oral hygiene) within 2 weeks, refer for specialist management.

4.Which of the following malocclusions is the most common? IG

A. Class I malocclusion

B. Class II division 1 malocclusion

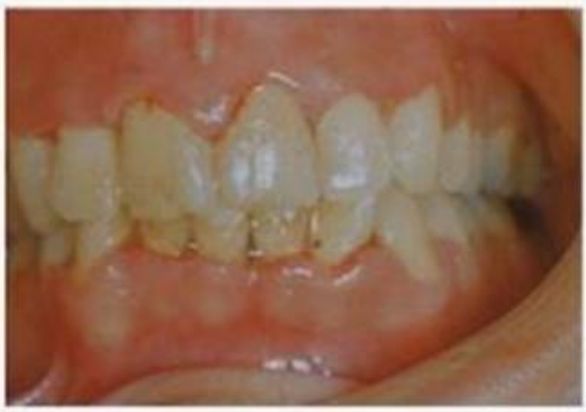
C. Class II division 2 malocclusion

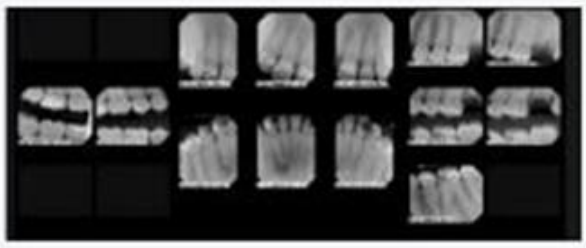
D. Class III malocclusion

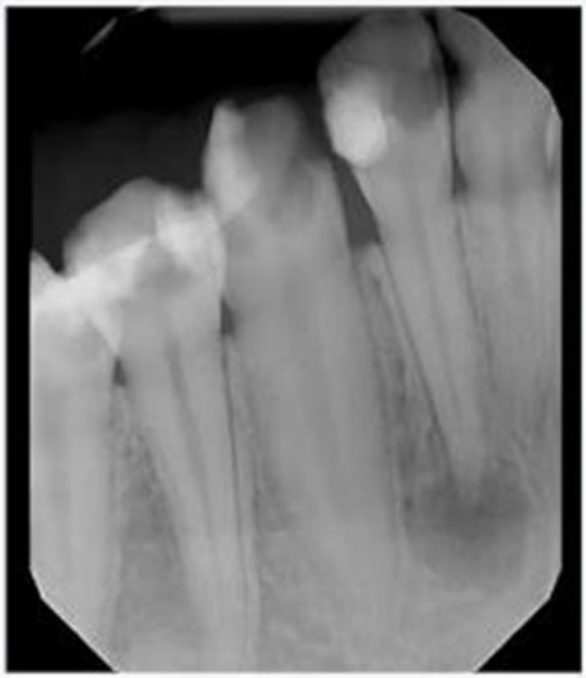
Ref-Contemporary orthodontics by proffit page 7

occlusion. Class I malocclusion (50% to 55%) is by far the largest single group; there are about half as many Class II malocclusions

5.The carious lesion on tooth 42 approximates the pulp. The tooth does not respond normally to pulpal testing. Which of the following best describes the pulpal diagnosis? DM







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A. Symptomatic reversible pulpitis

B. Asymptomatic irreversible pulpitis

C. Symptomatic irreversible pulpitis

D. Necrotic pulp

Ref-Endo disease classification(endobible)-page s21

Pulp necrosis

A necrotic pulp should be suspected when the tooth does not respond to pulp sensibility tests. However, this will not always be the case since teeth with pulp canal calcification, previous root fillings or pulpotomies will also not respond to pulp sensibility tests. Likewise, some teeth or patients just do not respond to such tests for no apparent reason. When pulp necrosis is present, the history may reveal past trauma, previous episodes of pain or history of restorations and caries. Radiographically, a tooth with a necrotic pulp may have signs (such as untreated caries, an extensive restoration, previous pulp capping) or there may be no such signs (e.g., following trauma). Trauma to a tooth may cause pulp necrosis as a result of severing the apical blood supply if the tooth has been displaced from its normal position (e.g., luxations, avulsion) or if there has been significant damage and inflammation to the apical periodontal ligament (e.g., subluxation).

SBQ 24 :

A 40 y/o patient presents to a new dentist with a tooth in need of a crown. She has 6 month old radiographs from her previous dentist that show tooth 24 with a fractured crown and no other previous treatment. Upon examining the tooth, the dentist notices that the palatal cusp of the tooth is fractured and pulp is exposed

1. What should be the first thing the dentist does? PH

A. Drill out the temporary filling and assess the tooth

B. Take a new radiograph

C. Begin to prepared the tooth for a crown

D. Ask the patient to go back to her old dentist to complete treatment

Since the patient has only old pre-treatment radiographs, new radiographs should be taken to see what treatment was done previously and to assess the condition of periap ical tissues.

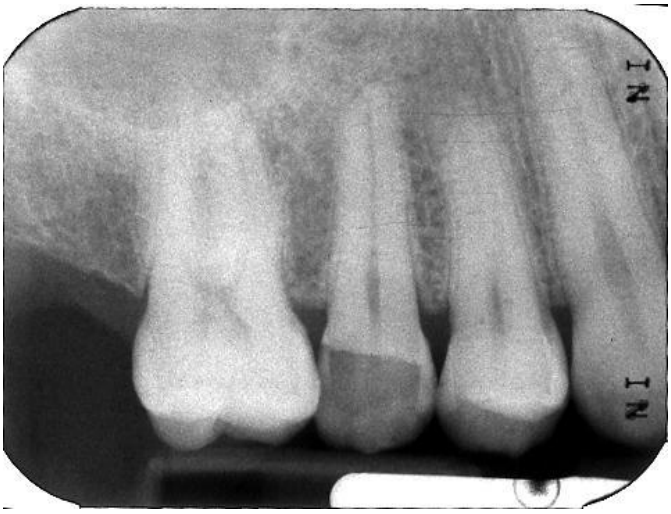
Ref-Deepak Nallaswamy page 493

Radiographic Examination

A full mouth radiographic examination should be carried out. The radiographs should be used to detect:

- The number, size and location of caries.
- Evidence of caries beneath existing restorations.
- The level of alveolar bone.
- Crown-root ratio of the abutment teeth.
- Morphology of the roots of the abutment teeth.
- Quality of endodontic restorations.
- Width of the periodontal ligament space. It is increased in patients with trauma from occlusion.
- Presence of any root stumps in the edentulous area.
- Thickness of the soft tissues in the edentulous area.

2.What is the prognosis in relation to 24 DM



A Good

B Guarded

C Poor

D Excellent

Ans B

in this case the palatal cusp and distal marginal ridge are lost ,so the prognosis is guarded

Ref-evidence based treatment planning for restoration of endodontically treated teeth-endo article folder

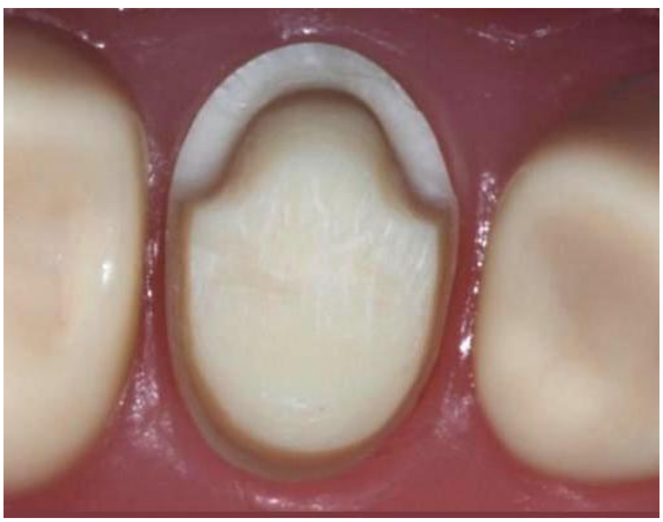
In similar form, a comprehensive literature review recommends restoration of root filled molars (and premolars) exhibiting limited tissue loss, that is, with 50% or more of the coronal structure preserved, without post placement, especially when cusp protection is planned.[17] One of the rare in vitro investiga-

Tooth survival after endodontic treatment-international endodontic journal 2022 article

responding to >1/3 of the crown.

Reasonably, the amount of residual tooth structure has an impact on the survival of root filled teeth. Although this has not been extensively studied, some studies suggest an association (Al-Nuaimi et al., 2020; Nagasiri & Chitmongkolsuk, 2005). Nagasiri and Chitmongkolsuk (2005) concluded that the amount of remaining tooth substance is a factor associated with tooth survival for teeth not being crowned after root canal treatment; the survival rate was highest for teeth with a maximal amount remaining, corresponding to a Class I cavity with a minimum of 2mm thickness of the surrounding cavity walls, whilst a lower survival rate was observed for teeth with a less amount remaining. Al-Nuaimi

3.After restoration, the tooth was prepared for a crown (image given below) . Based on the preparatory margins seen, what is the crown material of choice?   TE



A Zirconium

B Lithium disilicate
C Porcelain fused to metal
D Metal

Ans C

The question was about the choice of restoration according to **preparatory margins.**Here the facial margins are wide and palatal margins are narrow,indicating the preparation for metal ceramic crowns

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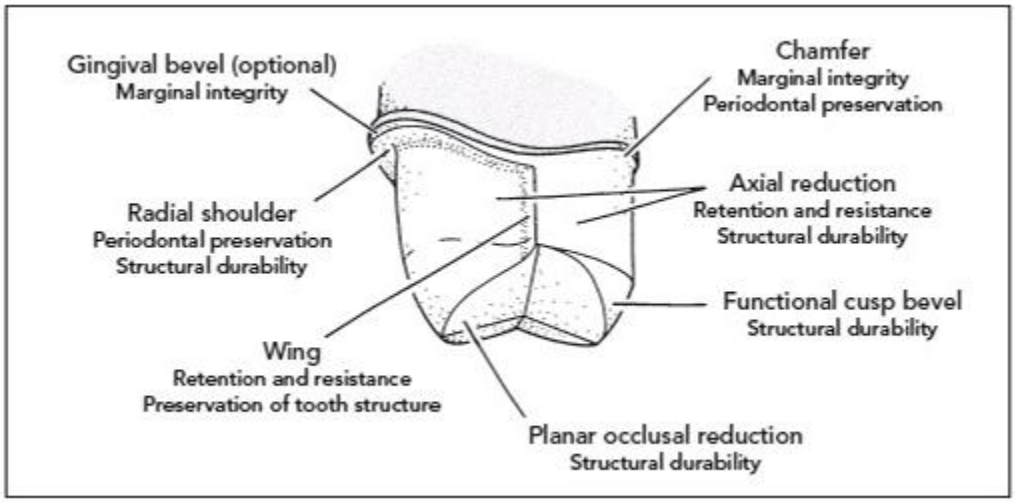
Ref-Schillinberg chapter 10

Posterior metal-ceramic crowns

The use of metal-ceramic crowns on posterior teeth allows the creation of an esthetic restoration on a posterior tooth needing a full crown. Maxillary premolars and first molars and mandibular first premolars are almost always visible in the full smile. Mandibular second premolars also can fall into this category. Maxillary second molars and mandibular molars may require metal-ceramic crowns if a patient will not accept all-metal crowns on those teeth, although they are rarely seen in most mouths.



4.She smokes 15-pack-year smoking history. When the dentist asks the patient if she has thought about quitting smoking, the patient replies, "I smoke because it helps me feel less stressed and I have no issues with that". According to the Stages of Change Model, which stage is this patient currently in? PH

A. Contemplation

B. Pre-contemplation

C. Maintenance

.D Denial

.

Ref-Transtheoretical model/stages of change model

1	Pre-Contemplation Stage	A person sees no problem with their behavior so they have no intention of making any changes. They usually seek professional help because of some external pressure. They may feel manipulated or forced into treatment by the legal system, Child Protective Services, employers, partners, friends, or family.
2	Contemplation Stage	A person recognizes there is a problem. They usually continue to weigh the pros and cons of the behavior they want to change.
3	Preparation Stage	This is considered the decision making stage of change. A person begins taking steps toward change by identifying realistic and reasonable goals that are consistent with their capabilities, values, and needs.
4	Action Stage	A person is actively taking the steps to change the behavior that is a problem. The individual is now ready to "do whatever it takes" and seems to fit in with a "program of recovery."
5	Maintenance Stage	A person practices the change until it becomes automatic. This is a continuous process of stabilizing the changed behavior to avoid relapse.

5.How do you motivate this patient to quit smoking ?

A Ask about patients willingness to quit

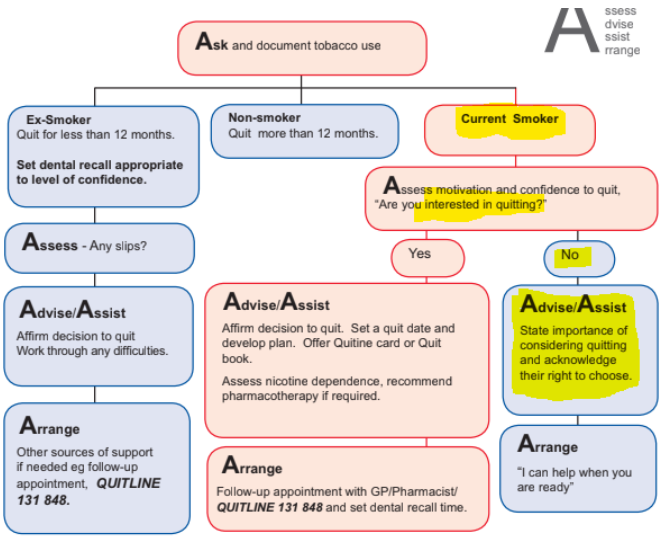
B Assess motivation and confidence to quit

C State importance of considering quitting and acknowledge their right to choose

D Affirm decision to quit

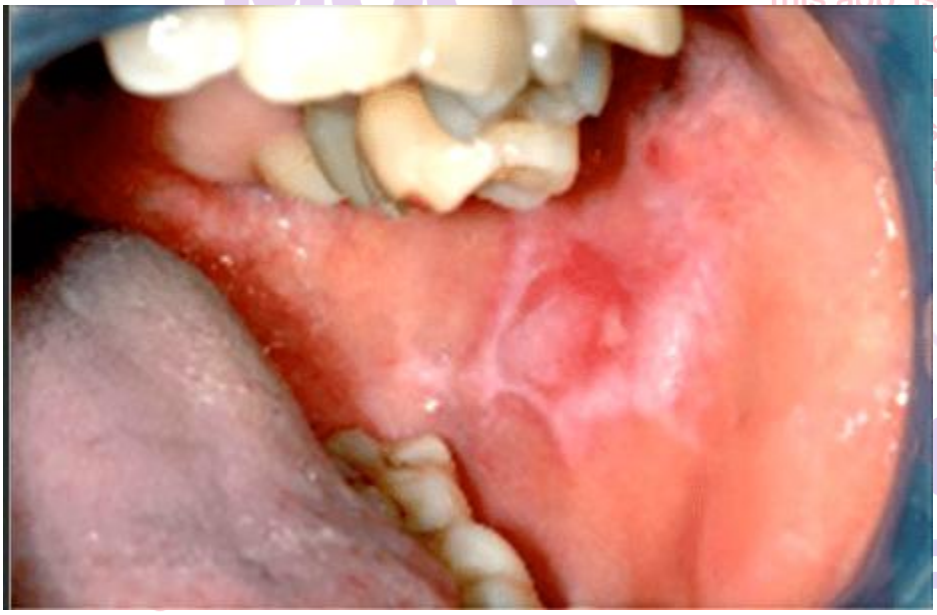
Ans C

Since the patient is in pre-contemplation stage(not ready to accept that a problem exists),we have to just state the benefits of quitting ,but not forcing and also acknowledging the patient's right to choose



SBQ 25 :

Male, 75 y/o visits you saying "I need to pull out some bad teeth" Patient has a history of smoking and periodontal disease. He recently developed thyroid disorder and is under medication for it. On examination you noticed a red, white ulcerated patch of mucosa in the buccal vestibule adjacent to 37. 44 and 45 were grade 3 mobile and you decided to extract them.



1.What are these red white patches ? DM

A Pemphigus

B Pemphigoid

C Lichenoid reaction

D Erosive lichen planus

Ans C

Lichen planus and lichenoid reactions are clinically and histologically similar ,except that lichen planus is idiopathic and lichenoid reaction is associated causative agent(filling/medicines/transplant rejection

Ref-Lichen planus and Lichenoid lesions-challenges and pitfalls of general dental practitioner -BDJ 204 article

Box 3 Overview of potential symptoms of OLP/OLLs

- Spontaneous discomfort or pain
- Discomfort or pain on consumption of strongly flavoured food/drinks
- Feeling of swelling
- Discomfort/pain on toothbrushing
- Discomfort/pain speaking
- Dysgeusia
- Areas of roughness
- Awareness ulceration and/or blistering.

2. When asked, the patient said that he noticed this patch only recently . Which of the following could have caused it IG

A dental restorations in upper teeth

B Thyroxine

C NSAID

D B blockers

Ans B

Ref-TG Page 103

Oral lichenoid lesion

Oral lichenoid lesions (see Photo 9; p.102) are similar in appearance to idiopathic oral lichen planus (see p.101).

Lichenoid mucosal reactions can be caused by:

- contact hypersensitivity to dental restorations
- hypersensitivity reactions to drugs, particularly:
  - drugs that lower blood pressure (eg beta blockers, angiotensin converting enzyme inhibitors, diuretics [particularly hydrochlorothiazide])
  - nonsteroidal anti-inflammatory drugs (NSAIDs)
  - drugs that treat thyroid disorders
- medical conditions:
  - hepatitis C infection, particularly in patients with the human leukocyte antigen HLA-DR6 allele (which is common in people of Mediterranean descent)
  - thyroid disorders
  - chronic graft-versus-host disease.

3.Which of the following is avoided in this patient ? PH

A Mepivacaine

B Elective dental procedure

C Extraction

D None of the above

Ans D

The patient's medical history does not preclude any of the dental treatments or drugs mentioned above.

4.A dentist is presenting a consent form to a patient for extraction of tooth 47 which is carious and fractured. Which of the following does NOT need to be included in the consent form? PH

A. Risks of extracting a mandibular molar including IAN proximity

B. Cost of the extraction

C. Full mouth treatment plan including replacement of teeth in edentulous areas

D. Possible postoperative complications

Options A,B,D are related to extraction of the tooth,since the procedure is extraction of 47,the consent should be related to the extraction.

Ref-DHSV guideline,policy 18 version 6-consent to treatment policy

Health practitioners should discuss with each patient:

(a) the possible or likely nature of the illness/disease/problem

(b) the proposed approach to investigation, diagnosis and treatment including:
- what it entails
- the expected benefits
- common side effects and material risks
- whether the procedure/treatment is conventional or experimental
- who will undertake the procedure/treatment

(c) other options for investigation, diagnosis and treatment

(d) the degree of uncertainty of any diagnosis and of any therapeutic outcome

(e) the likely consequences of not choosing the proposed procedure/treatment, or of not having any procedure/treatment

(f) any significant long term health related outcome, which may be associated with the proposed procedure/treatment

(g) the time and cost (if applicable) likely to be involved, including any out of pocket expenses.

5.Which of the following sites has the poorest prognosis for osseointegration of an implant? DM

A. Anterior Maxilla

B. Anterior Mandible

C. Posterior Maxilla

D. Posterior Mandible

Ref-Patient related risk factors in implant therapy -ADJ article

1140 patients over a 21-year period. Overall implant failure was reported to be almost twice as frequent for implants placed in the maxilla (8.16%), than in the mandible (4.93%). Failures in the posterior maxilla (9.26%) were higher than the anterior maxilla (6.75%) and the posterior mandible showed a higher failure rate (5.89%) than the anterior mandible (2.89%).

6.All of the following are relative implant contra-indications EXCEPT one. Which is the EXCEPTION? DM

A. Immunocompromised patients

B. Insufficient height and width of bone

C. Uncontrolled diabetes

D. Old age

Ref-Implant for ageing population -ADJ article,Carranza 12 th edition page 703

Age and surgical implant placement

In a literature review of implant dentistry for aged patients where similar implant survival rates were cited in older and other age groups, it was concluded 'old age is not a contraindication for implant therapy, however, clinicians should be aware of potential risks, possible medical complications, and psychosocial issues that affect implant prognosis in geriatric patients'.[9] A separate review of nine studies reporting

SBQ 26 :

A female reported saying she had an implant placed two months ago and came here for a follow-up
Pt is healthy,not a smoker or drinker. She lost tooth 21 due to a traumatic injury. Upon examination, you notice that the implant is mobile and the patient states it felt that way since it was placed

1.Which of the following would be the most likely reason for implant failure here? TE

A. Surgical error by the dentist during placement

B. Severe bruxism

C. Improper oral hygiene

D. Insufficient bone levels

According to patient history,the implant was loose from the day of surgery which means lack of initial stabilisation.

Ref-Why do implants fail-part 1 article

Lack of Initial Stabilization

The use of excessive force to disengage a locked drill during site preparation, faulty hand positioning of the surgeon during drilling or threading, poor bone quality, and the use of finger rest during osteotomy preparation[46] are all factors that may lead to an oversized osteotomy. Bone-cell injury with subsequent necrosis and elliptical preparation of the site with subsequent soft-tissue encapsulation around the implant body are resultant aspects of these factors.

2. All of the following are benefits of having a screw vs. cement retained implant crown EXCEPT one. Which is the EXCEPTION? DM

AEsthetics

.

BRetrievability

.

CNo excess cement in gingival sulcus

.

DLimited inter-occlusal arch span

.

Aesthetics

Screw and cement retained restorations both
enhanced esthetics if an ideal implant position is achie
unable to achieve ideal implant position, custon
angulated abutments can be employed so that access h
screw can be repositioned away from esthetic zone
cement retianed restorations esthetics is more predicta
it does not involve screw access holes.[6]

3.What is osseointegration of dental implants? IG

A A direct bone to implant contact at the time of implant placement

B A direct bone to endosseous implant contact at macroscopic level

C A contact of bone and endosseous implant with a fibrous tissue interface

D A direct structural connection between bone and endosseous implant at the light microscopic level

Ans D

Option is the definition by branemark.

Osseointegration

> *"A direct connection between living bone and a load-carrying endosseous implant at the light microscopic level."[3]*
>
> *-Branemark*

4. What is an ailing implant ? TE

A Even after treatment implant will eventually fail

B prompt treatment may be able to save the implant and prevent complete failure

C Implant has failed

D none of the above

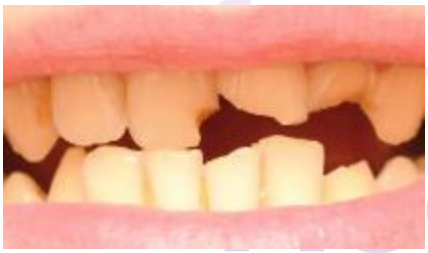
Ans **B**

Ref-Why do implants fail-part 2

ailing implants as those showing radiographic bone loss without inflammatory signs or mobility. Such implants do not pose any indication of failure, but with the progression of bone loss, they could be at a higher risk of failure. Failing implants are

SBQ 27 :

A young scuba diver visits you saying that his temporary restorations in the tip of his incisors have fractured off and wants it corrected. The following teeth were missing in his oral cavity 15,14,16 (17,18 present) and he wish to get them replaced. he has not relevant medical history and maintains good oral hygiene



1.What is the best material of choice for this patient ? TE

A Resin composite

B Compomer

C RMGIC

D GIC

Ans A

Ref-Sturdvent page 229

Pertinent Material Qualities and Properties

The specific material qualities and properties that make composite the best material for most Class III, IV, and V restorations relate mainly to esthetics. Other qualities include adequate strength and the benefits of bonding to tooth structure, often resulting in removal of less tooth structure during preparation.

2 One of his lower molars was chronically infected and needed root canal therapy . When can the patient resume diving is he was undergoing RCT TE

A Patient can resume the same day

B Patient shouldnt dive for 1 week within of treatment completion

C Patient shouldnt dive within 24 hours of treatment completion

D Patient shouldnt dive until the next recall visit

Ans C

Ref-Diving dentistry-ADJ article page-268

closure is indicated.[22]

Temporary diving restriction after dental and surgical procedures is still a powerful tool for prevention of postoperative barodontalgia.[1] Patients should not dive within 24 hours of a restorative treatment requiring anaesthetic and within at least seven days of having surgery.[22] In suspected or actual oroantral communica-

3.What does the term barodontocrexis mean DM

A barometric-induced dental fracture

B barometric induced pulpal pain

C barometric induced neural pain

D barometric induced jaw pain

Ans A

Ref-Diving dentistry-ADJ article page-266

The term barodontocrexis (barometric-induced 'tooth explosion', Greek) describes the phenomenon of dental fracture.[3,18] Most of the reports regarding dental fractures under barometric changes considered in-flight conditions and were published several decades ago.[3] Dental barotrauma occurs while ascending; upon surfacing after completing the dive, the diver may report that a tooth broke or has shattered.[19] Dental barotrauma can appear with or

4.Which nerve is commonly affected when divers develop middle ear barotruama IG

A Lingual nerve

B Auriculotemporal nerve

C Facial nerve

D Glossopharyngeal nerve

Ans C

Ref-Diving dentistry-ADJ article page-266

A potential complication is facial palsy secondary to middle ear barotrauma (also called facial baroparesis), caused when elevated pressure from the middle ear is transmitted to the facial canal via dehiscence within its course along the medial wall of the middle ear or via the fenestra of the chorda tympani, resulting in ischaemic neurapraxia of the facial nerve. This phenomenon

5. For restoring the missing teeth the best treatment option for this patient is TE

A Co-Cr partial denture

B Acrylic denture

C Implants

D Fixed - removable partial denture

Ans C

Ref-Diving dentistry-ADJ Page 267

For prevention of dislodgement and aspiration, patients should be advised not to dive while having provisional restorations or temporary cement in the mouth. Resin cement should be used when treating patients who are subjected to pressure changes. Since dislodged partial removable prostheses could be accidentally aspirated during diving (with one reported case of resulting death),[19] these devices should be removed before diving, unless they are securely retained. Retention by adequate osteointegrated dental implants is probably the best resolution for edentulous divers. Alternatively, a 'custom edentulous mouthpiece' which combines a mouthpiece with a prosthesis, may be offered.[28]

SBQ 28 :

A 50 y/o female patient with generalized moderate chronic periodontitis presents for a re-evaluation after concluding phase I therapy. There are 7 mm pockets remaining in the molar regions of maxillary teeth and 4 mm pockets remaining in the mandibular premolars. Which of the following is the correct course of action? DM

A. Perform phase 1 scaling and root planing and re-evaluate in 4-6 weeks again

B. Place patient on 3-month maintenance period

C. Surgical therapy for maxillary molars with remaining 7 mm pockets only

D. Surgical therapy for maxillary molars with remaining 7 mm pockets and mandibular premolars with remaining 4 mm pockets

Ref-Carranza 12th edition page 650

Reevaluation

After 4 weeks the gingival tissues are evaluated to determine oral hygiene adequacy, soft tissue response, and pocket depth (see Chapter 44). This permits sufficient time for healing, reduction in inflammation and pocket depths, and gain in clinical attachment levels. In deeper pockets (>5 mm); however, plaque and calculus removal is often incomplete,[42,46] with risk of future breakdown[7] (Figure 66-2). As a result, periodontal surgery to access the root surfaces for instrumentation and to reduce periodontal pocket depths must be considered before restorative care may proceed.

2. Which of the following is characteristic of a gingivectomy procedure? TE

A Internal bevel incision

.

B Provides access to bony defects

.

C Contra-indicated in suprabony defects

.

D Contra-indicated in patients with lack of keratinized gingiva

.

Ref-Carranza 12th edition page 579

Contraindications to gingivectomy include the following:

1. The need for bone surgery or examination of the bone shape and morphology
2. Situations in which the bottom of the pocket is apical to the mucogingival junction
3. Aesthetic considerations, particularly in the anterior maxilla

3.All of the following are true of a modified widman flap EXCEPT one. Which is the EXCEPTION? TE

A Allows for direct access for scaling and root planing

.

B Vertical releasing incisions are not required

.

C Internal bevel incision

.

D External bevel incision

.

Ref-carranza 12th edition page 593

are performed for the different types of flaps (Figures 59-1 and 59-2). The internal beveled incision for the modified Widman flap closely follows the scalloped outline of the dentition to minimize the loss of the attached keratinized gingiva. This incision is made 1 mm to 2 mm from the teeth. The gingival margin is removed, and the flap is reflected to gain access for root therapy.

4.The reshaping and re-contouring of alveolar bone to achieve a more physiologic form without removing supporting bone is termed: TE

AOsteotomy
.

B Osteoplasty
.

COstectomy
.

DBone sounding
.

Ref-Carranza 12th edition page 605

Procedures used to correct osseous defects have been classified in two groups: osteoplasty and ostectomy.[7] *Osteoplasty* refers to reshaping the bone without removing tooth-supporting bone. *Ostectomy,* or *osteoectomy,* includes the removal of tooth-supporting bone. One or both of these procedures may be necessary to produce the desired result.

5. Which of the following bone graft sources has the most osteogenic potential? DM

AAutograft
.

BAllograft
.

CXenograft
.

DAlloplast
.

Ref-Carranza 12th edition page 739e2

TABLE 76-2 Biologic Properties of Various Bone Graft Materials

Source	Osteoconductive	Osteoinductive	Osteogenic
Alloplast	Yes	No	No
Xenograft	Yes	No	No
Allograft	Yes	Yes/No?	No
Autograft	Yes	Yes	Yes

Autogenous Bone Compared with other bone graft materials, autogenous bone is thought to be the best bone graft material because, in addition to being osteoconductive, it is osteoinductive and osteogenic.

SBQ 29

Selena, 46 years old, complains of lower front teeth being very sensitive, especially when she brushes her teeth. She has type 2 DM and is well controlled . She has good oral hygiene . Intraoral exam reveals gingival recession on teeth 22-27 that extends beyond the mucogingival junction and radiographs reveal no loss of interdental bone

1.Which class of gingival recession can this be categorized as? DM

AClass I

.

BClass II

.

CClass III

.

DClass IV

Ref-Carranza 12th edition,page 628 e6

wide.

Class II. Marginal tissue recession extends to or beyond the mucogingival junction. There is no loss of bone or soft tissue in the interdental area. This type of recession can be subclassified into wide and narrow.

2.Biological width is composed of: IG

I. Sulcular epithelium
II. Junctional epithelium
III. Connective tissue attachment

A. I only

B. I, II

C. II, III

D. I, II, III

Ref-Carranza 1th edition page 651e2

logic width is preserved. The *biologic width* is defined as the physiologic dimension of the junctional epithelium and connective tissue attachment (see Chapter 67). This measurement has been found to be relatively constant at approximately 2 mm (±30%).[10]

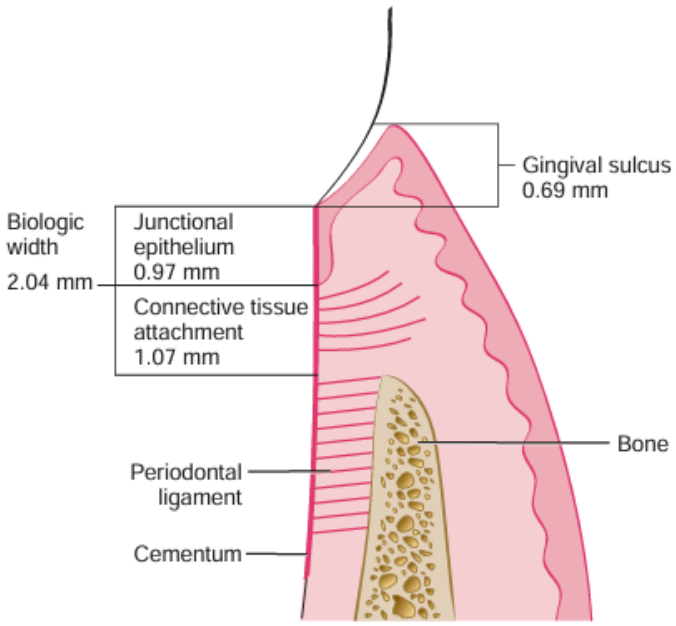


Figure 66-7 The biologic width has been estimated to be about 2 mm. Efforts should be made to preserve its integrity.

3.Which of the following is most likely to be iatrogenically damaged during a free gingival graft procedure? TE

AGreater palatine neurovasculature
.

BLesser palatine neurovasculature
.

CAnterior superior alveolar nerve
.

DPosterior superior alveolar nerve
.

During harvesting the palatal graft for free gingival graft, ,there is a chance of damaging greater palatine nerve

Ref-Carranza 12th edition page 560

The *greater palatine foramen* opens 3 to 4 mm anterior to the posterior border of the hard palate (Figure 54-11). The greater palatine nerve and vessels emerge through this foramen and run anteriorly in the submucosa of the palate, between the palatal and alveolar processes (Figure 54-12). Palatal flaps and donor sites for gingival grafts should be carefully performed and selected to avoid invading these areas, because profuse hemorrhage may ensue, particularly if vessels are damaged at the palatine foramen. Vertical incisions in the molar region should be avoided.

4 What is an advantage of connective tissue grafts in mucogingival correction surgery? DM

A Healing is via primary closure

B Healing is via secondary closure

C Donor site is not autogenous

D Connective tissue from a non-keratinized zone can be used

Ref-Carranza 12th edition Page 628e11

Step 6. Cover the area with dry foil and surgical dressing. After 7 days, the dressing and sutures are removed. The esthetic results are favorable with this technique since the donor tissue is connective tissue (Figure 63-15, *E*). The donor site heals by primary intention, with considerably less discomfort than after a free gingival graft.

5.While conducting a periodontal examination, a probing depth of 7 mm was recorded on the lingual of tooth 36. The free gingival margin is 3 mm apical to the CEJ. What is the attachment loss on the lingual of tooth 36? IG

A 7 mm

B 10 mm

C 8 mm

D 4 mm

1: Total loss of attachment (clinical attachment loss, CAL) is the sum of 2: Gingival recession, and 3: Probing depth