

NOTES

Just I memorize these 50 pages on last 2 days of my exam these are so helpful.. and its combination of Dental desks ,NBDE page discussion and google..

Bisphosphonates are a group of drugs mainly used for the treatment of osteoporosis (taken orally) but may also used in the treatment of cancer (given intravenously and in higher doses). These drugs affect the metabolism (turn-over) of bone. Examples of bisphosphonates include: alendronic acid, risidronate, zoledronic acid (Zometa).

Extractions Not contra-indicated as ONJ risk is low. Root canal treatment preferable. Atraumatic extractions and careful follow-up of exposed bone are recommended. Avoid extractions if possible as increased risk of ONJ. Root treatment preferable. For periodontally affected teeth, only extract if excessive bone loss

Difficulty pronouncing "f" and "v" sounds is most likely associated with skeletal class III malocclusion

chi square is used mainly for comparison between multiple varieties, and t test is for difference between 2 varieties

x rays...get used to a lot of x rays.....especially condensing osteitis, osteosclerosis..focal, focal cemento osseous dysplasia, ossifying fibroma, odontoma
DUML rule

So when doing selective grinding for this region have to do opposite of DUML?

If p-value<0.05 reject null

If p-value>0.05 fail to reject null

<http://www.cram.com/flashcards/2010-released-qs-and-ans-2360369>

On working side, the contact is between lingual inclines of facial cusps on maxillary teeth and buccal inclines of facial cusps of mandibular teeth.

When you are moving towards working side it means the cusp slope of maxillary buccal cusp is higher, that's why there is no contact on balancing side. So reduce the facial cusp of maxillary working side in order to provide balancing side contact.

<https://www.facebook.com/DrBillDorfman>

$(D1/D2)^2 = T1/T2$ radiology problems equations

Surface hardness strength and prop limit of the metal are inc with strain hardening (burnishing) where as ductility and resistance to corrosion decreases. Elastic mod (stiffness)unchanged.

Adrenaline release and excess insulin during hypoglycemia stimulate the uptake of potassium from the bloodstream, causing low plasma potassium (hypokalemia)

Granules migration and excessive augmentation are common problems with hydroxyapatite materials

toothbrush and dental floss can penetrate into sulcus. for toothbrush its 1mm and floss is 2mm

complete denture balanced occlusion lingual cusp of maxillary post teeth on non working side contact the lingual inclines of facial cusp.

Dental amalgam be trimmed by carving along the margin with a sharp instuent that rest on tooth surface.

<http://quizlet.com/20093063/amalgam-class-i-amalgam-preps-cavity-form-flash-cards/>

class 1 amalgam, mesial and distal wall divergent to prevent the undermining of marginal ridges.

Majority of individual as they mature profile become less convex.

In adapting pontic to residual ridge the dentist must maintain a proper biological and hygienic environment. Therefore pontic must not be concave in 2 directions.

Early effect of traumatic occlusion hemorrhage and thrombosis of blood vessels in PL

How to differentiate between Cementoma and Condensing osteitis (CO)? Cementoma will be attached with the root surface where as CO will be not

Condensing osteitis is a reaction to periapical infection resulting in the formation of dense bone. The infection usually originates from caries (sometimes from periodontal disease).

Hand piece stones can be used to primarily to sharpen spoon shaped excavator..

Cusp to be restored by amalgam should be reduced by 2mm while forming flattened surface.

Hairy tongue hypertrophy of filiform papilla

In class 5 amalgam prep for an incipient lesion the internal form of the prep has axial wall is uniformly deep in to the dentine

Amalgam core mean in canal depth in each root canal should be 3mm.

Primary occlusal trauma occurs when *greater than normal occlusal forces* are placed on teeth, as in the case of parafunctional habits, such as **bruxism** or various chewing or biting habits, including but not limited to those involving fingernails and pencils or pens.

Secondary occlusal trauma occurs when *normal occlusal forces* are placed on teeth with *compromised periodontal attachment*, thus contributing harm to an already damaged system.

NO CONTRAINDICATIONS: This includes patients with pneumothorax, pulmonary blebs, air embolism, bowel obstruction, and those undergoing surgery of the middle ear.

Anti cholinergic drugs are contraindicated in glaucoma

A tray for a polysulfide impression that lacks occlusal stops may result in an inaccurate impression because of permanent distortion during polymerization.

The reactive lesion of gingival tissue that reveals bone formation peripheral ossifying fibroma.

The correct total flow of NO is determined by the amount necessary to keep the reservoir bag 1/3 to 2/3 full.

To prevent the exposure of a dehiscence or fenestration on prominent root best choice is partial or split thickness flap

Pharyngomandibular raphe in btw superior constrictor and buccinator

For cutting into dentin, metal crowns, amalgam = Use tungsten carbide..

For extracoronary prep = Use diamond

Don't use diamond on metal crown, generation of heat is there ..
Cutting efficiency of carbide is more in dentin as it is viscoelastic

Vertical root frac / facio lingual/ pain on biting
Crack tooth syndrome/mesio distal/pain on releasing bite..

Anterior open bite apertognathism

Grinspans syndrome...>DM+hypertention+lichen planus

Knife edge mandibular residual ridge maximal extension of denture to distribute the force over a wide area

Kaposi sarcoma most common intraoral site palate

Tripod spot to record the orientation of cast to surveyor.

Distofacial impression of mandibular arch-----overextended-----soreness----bcz of master

Lymphangioma is most commonly related to cystic hygroma

Value is the most important characteristic in shade matching

ORANGE INCREASES CHROMA

YELLOW and PINK PURPLE are used for HUE

Parotid gland is mainly responsible for stimulated saliva ..

Where as if patient experiences drying of mouth through out the day that is because of Submandibular and Sublingual gland.

1. Most common impacted anterior tooth--- maxillary canine
2. Most common supernumerary tooth—mesiodens
3. Most common ectopically erupted tooth—maxillary permanent first molar
4. Most common malignancy of oral cavity—squamous cell carcinoma
5. Most common benign tumour of oral cavity—fibroma
6. Most common retained tooth – primary mandibular second molar
7. Most common recurring cyst— odontogenic keratocyst
8. Most common cyst in oral cavity— periapical cyst
9. Most common lichen planus- reticular lichen planus.
10. Most common dermatosis to affect oral cavity- lichen planus
11. Most common chemical burn in oral cavity – aspirin burn
12. Most common topical fluoride in adults – stannous fluoride
13. Most common topical fluoride in children—1.23 APF gel.
14. Most common brushing technique-scrub technique
15. Most common developmental cyst-nasopalatine cyst
16. Most common complication of GA (op)-nausea
17. Most common used drug for petitmal epilepsy-ethosuximide
18. Most common used drug for grand mal-phenytoin
19. Most common drug used for temporal epilepsy- carbamazepine
20. Most common treatment for cyst – enucleation
21. Most common used clasp-simple circumferential clasp
22. Most common used face bow in fpd- kinematic
23. Most common complication of RA involves TMJ-fibrous ankylosis
24. Most common salivary malignancy in children – mucoepidermoid carcinoma.
25. Most common salivary malignancy in palate area-ACC
26. Most common type of haemophilia--- haemophilia A
27. Most common type of gingivitis in children--- eruption gingivitis
28. Most common type of cerebral palsy is –athetoid/ spastic.
29. Most common nerve involved in C sinus thrombosis – abducent nerve
30. Most common type of impaction ---mesioangular
31. Most common benign epithelial tumour---- papilloma
32. Most common complication of surgical extraction of lower third

- molar—loss of blood clot
33. Most common used instrument grasp—pen grasp
 34. Most common susceptible tooth for caries—mandibular first molar
 35. Most common contrast media - iodine in oil
 36. Most common cause of light radiographs — exhausted developer
 37. Most common cause of failure of RCT— incomplete obturation
 38. Most common isolated yeast strain from RCT— Candida
 39. Most common bacteria found in root canals --- gram positive
 40. Most common part of oral cavity affected by L planus –buccal mucosa.

Diagnostic findings of common dental problems			
	Symptoms	X-ray findings	Pulp vitality tests
Reversible pulpitis	Asymptomatic or slight symptoms to thermal stimulus	No changes	Gives response to vitality tests
Irreversible pulpitis	Asymptomatic or may have spontaneous or severe pain to thermal stimuli	No changes, except in long standing cases condensing osteitis	Gives response
Pulp necrosis	None	Depends on periapex status	No response
Acute apical periodontitis	Pain on biting or pressure	Not significant	Depending on status of pulp, response or no response
Chronic apical periodontitis	Mild or none	Not significant	Depending on pulp status, response or no response
Acute apical abscess	Pain and/or swelling	Radiolucency at apical end	No response
Chronic apical abscess	Draining sinus	Radiolucency	No response
Condensing osteitis	Varies according to status of pulp or periapex	Increased trabecular bone	Depending on pulp status response or no response

2.

Increase or decreasing the distance will not have effect on exposure time

Xray are High frequency - short wavelength - high energy

Wits:

-2 to +2 = Normal

Less than -2 = Class 3

More than +2 = Class 2

ANB normal = 2-4

Less than 2 = Class III

More than 4 = Class II

2.2mg will give 1mg of fluoride.

If complex treatment is to be carried out, like extraction of multiple teeth in an uncooperative child. USE GA .

Multiple extractions in cooperative, use Inhalation.

Simple extractions

<http://www.dentaltraumaguide.org/definitions.aspx>

cleft lip at 10 weeks, cleft palate 6-12 months

no space maintainer before age 3..

M C A T contraindicated in pregnancy.

Metronidazole

Chloramphenicol

Aminoglycoside

Tetracycline

Le Fort I osteotomy:

'advancement; or treatment of upper jaw 'malocclusion and cleft palate'. Used to treat maxillary 'retrognathia'

Le Fort II osteotomy

treatment of upper jaw 'fractures'

Le Fort III osteotomy

treatment of 'midface' problems and deficiencies .

Diazepam treats Lidocaine overdose

Flumazenil treats Diazepam overdose

Neostigmine treats cholinesterase inhibitors overdose

Naloxone treats opioid overdose

Milk & Calcium for fluoride overdose

A 4 yr old child management empathy and respect

Management of moderately apprehensive child Replacing words like LA with sleepy juice is called as Euphemism.

The restraining of uncooperative 2 yr child should be done by Dentist, Assistant, Parent

The dentist separately for core-build up and the crown but the insurance company says that the core build up is part of crown.what is this called. bundling know unbundling also

Radiographic projection from the base of the skull: Submentovertex projection

o The zygomatic arches stand out like the handles of a jug on this view

Note:gingival index: both ordinal and nominal

Galvanic shock Sensitivity - choose this if only question says opposing dissimilar metal

What is the function of Hex on implants? b.

Crown and Bridge" Gold Alloys (Non-ceramic)

* Type I (soft) - min. 83% Noble Metal

* Type II (medium) - min. 78% Noble Metal

* Type III (hard) - min. 78% Noble Metal

* Type IV (extra hard) - min. 75% Noble Metal

* Type I - small inlays; very slight stress

* Type II - inlays, thick 3/4 crowns, complete crowns

* Type III - thin 3/4 crowns, abutments, pontics,

complete crowns, short-span FPD's

* Type IV - RPD Frameworks, long span FPD's

hemisection mand molar Mandibular molars to treat Class II or III furcation invasions

o Root amputation max molar

The drug enforcement agency is concerned with what? potential for abuse

What branch off facial nerve gets damaged the most during TMJ surgery? Temporal

Metastasis to the oral cavity is most likely to end up where? floor of mouth

The patient retires and loses health benefits. treatment is done on the next day. the pt requests the dentist to enter the previous day date and the dentist does Fraud

Patient has 2mm communication with the maxillary sinus. what is the treatment of choice.

- o 2mm: don't do anything and follow up
- o 2-6 mm: place gel foam (surgicel), suture ,decongestant and antibiotic , inform patient
- o more than 6 mm: buccal flap

Abuses that have to be reported to authorities

- colleague practicing with chemical impairment
- colleague advertising on electronic media
- child abuse
- domestic violence
- elderly abuse

Rule of 6s

- o F- > 0.6 ppm NO SUPP
- o Pt < 6 mos NO SUPP
- o Pt > 16 yrs NO SUPP
- 2.2 mg of NaF will provide 1 mg of Flouride *memorize*

Unbundling: "the separating of a dental procedure into component parts with each part having a charge so that the cumulative charge of the components is greater than the total charge to patients who are not beneficiaries of a dental benefit plan for the same procedure."

o Bundling: "the systematic combining of distinct dental procedures by third-party payers that results in a reduced benefit for the patient/beneficiary."

o Upcoding or overcoding: "reporting a more complex and/or higher cost procedure than was actually performed."

o Downcoding: "a practice of third-party payers in which the benefit code has been changed to a less complex and/or lower cost procedure than was reported except where delineated in contract agreements."

maxillary molar has the worst prognosis in furcation involvement

Pt says "your fees seem high" ... how do you respond? "my fees are comparable to geographic area"

Bone density changes : Subtraction Radiography

Hand-Schuller-Christian triad

- o Diabetes insipidus
- o Exophthalmos
- o Bone lesions (Langerhans dis)
 - Oral signs of hand-schuller-christ. = bad breath, sore mouth, loose teeth
- o lesion are sharply punched out radiolucency and teeth appear as FLOATING IN AIR

Ameloblastoma and myxoma---- Honey comb-soap bubble

- Paget's: Billateral maxilla-----Cotton wool

Osteosarcoma : Radiographic sunburst appearance

- Fibrous dysplasia: Ground Glass Appearance

You are the 8th dentist, pt did not like none of the previous. Likes you and will bring all his family. Pt suffers from?

o paranoid--no trust

- characterized by paranoia and a pervasive, long-standing suspiciousness and generalized mistrust of Others

Pt with hemoglobin A1C of 12%,Pt just visited the MD, what kind of TX we can do? Consult with MD prior tx

- o In most labs, the normal range is 4-5.9 %.
- o In poorly controlled diabetes, its 8.0% or above
- o in well controlled patients it's less than 7.0%.

Free gingival graft receives its epithelium from – adjacent tissue (blood supply from CT)

Perineural invasion is seen in – adenoid cystic carcinoma

Resorption is centripetal (towards the centre) in the maxilla, and centrifugal (away from the centre) in the mandible. Hence, the size of the maxillary arch will decrease with resorption and the size of the mandibular arch will increase.

2013 ADA Guidelines: According to these guidelines, antibiotic prophylaxis should be considered for people with:

Artificial heart valves.

A history of an infection of the lining of the heart or heart valves known as infective endocarditis.

A heart transplant in which a problem develops with one of the valves inside the heart.

Heart conditions that are present from birth, such as:

Unrepaired cyanotic congenital heart disease, including people with palliative shunts and conduit.

Defects repaired with a prosthetic material or device—whether placed by surgery or catheter intervention—during the first six months after repair.

Cases in which a heart defect has been repaired, but a residual defect remains at the site or adjacent to the site of the prosthetic patch or prosthetic device used for the repair.

Antibiotic prophylaxis guidelines also have been developed for people who have orthopedic implants such as artificial joints. In 2012, the ADA and American Association of Orthopedic Surgeons updated the recommendations and no longer recommend antibiotics for everyone with artificial joints. As a result, your healthcare provider may rely more on your personal medical history to determine when antibiotics are appropriate for people with orthopedic implants. For example, antibiotic prophylaxis might be useful for patients who also have compromised immune systems (due to, for instance, diabetes, rheumatoid arthritis, cancer, chemotherapy, and chronic steroid use), which increases the risk of orthopedic implant infection.

In the maxillary molars, the most prevalent anatomical location of enamel pearls in the first and second molars was the furcation between the distobuccal and palatal roots,

Us population sees a dentist each year is 60%.

Furcation type 1,2-----GTR

Furcation type 3-----reposition flap surgery

Cherubism soap bubble appearance.

http://www.ecy.wa.gov/mercury/mercury_dental_amalgam.html

sagittal split osteotomy-----maxillary excess/retro

vertical ramus osteotomy mand set back

lefort 1----Apertognathia

office bleaching-----superoxol

walking bleaching-----sodium perborate.

Composite doesnot maintain the mesiodistal dimension of restoration.

Earliest bacteria found in plaque is streptococcus sanguis.

unfilled resin

Lowest thermal conductivity and diffusibility

High coefficient of thermal expansion.

Initiator benzoyl peroxide

1 yClean teeth with soft toothbrush. 1–2 yParent should perform brushing. 2–6 yPea-sized amount of fluoride-containing toothpaste 2 times per day; parent performs or supervises. >6 yBrush with fluoridated toothpaste 2 times per day.

Malleability-----plasticity, tensile strength and elongation

Ductility -----compressive strength and plasticity but no T.S

Antidotes for different drug overdose...

1. Heparin- protamine sulfate

2. TCA overdose- Physostigmine

3. Warfarin- Vit K

4. Opioids - Naloxane/Naltrexone

5. Beta blocker- glucagon

6. Benzodiazepene- Flumazenil

7. Theophylline- beta blocker

8. organophosphate poisoning- atropine, pralidoxime

9. Acetaminophen- N acetylcysteine

10. aspirin- Potassium salt and sodium bicarbonate

digoxin- phenytoin

Enlarged pulp chamber in

Dentinogenesis imperfect type 3

Dentinal dysplasias type 2

Regional odontodysplasia

Hypophosphatasia

Most common site for petechiae is palate.

Enlarged marrow spaces due to loss of trabeculae-----sickle cell anemia

Flaring of max ant teeth-----thalassemia major and minor

Erythroblastic fetalis-----can cause enamel hypoplasia

Chronic lymphocytic leukemia-----lymph node, complicated by hemolytic anemia, survival rate z good

Ch myeloid leukemias-----splenomegaly, Philadelphia chr, survival rate 4 years

Blast cells or auriferous bodies-----acute myeloid leukemia

Scleroderma radio findings

1. bilateral resorption at the angle of mandible

2. condyle and coronoid resorption

3. widening of periodontal ligament space.

Onion skin-----osteomyelitis

Wanderwede syndrome---cleft lip, palate, lower lip pits

Dental findings in osteopetrosis

1. delayed eruption

2. congenitally absent teeth

3. unerupted malformed tooth

4. enamel hypoplasia

-Ground Glass appearance--> Fibrous dysplasia

2-Punched out radiolucencies-->Multiple Myeloma

3-Cotton Wool Appearance-->Paget's Dz

4-Tooth Floating in Air-->Eosinophilic Granuloma

5-Snow Appearance--> Calcifying Epithelial Odontogenic Tumor(CEOT)

6-Honey Comb Appearance--> Odontogenic Myxoma

7-Soap Bubble Appearance--> Aneurysmal Bone Cyst, Cherubism

8-Scooped out radiolucencies at mid root level--> Histiocytosis X

9-Scalloped radiolucencies around the roots of teeth--> Simple bone cyst aka traumatic bone cyst

10-Beaten Metal appearance on the skull-->Crouzon Syndrome

11-Enlarged marrow spaces--> Sickle cell Anemia

13-Widened PDL with dissolving bone--> Non-Hodgkin lymphoma

14-Moth-Eaten radiolucency--> external resorption.

15.honey comb appearance..... Aneurysmal Bone Cyst

Blood test level shows vit D deficiency

Low level of vitamin D

Low calcium and phosphorus level

Alkaline phosphatase level can be high

Vit D deficiency higher carrier rate...

Alkaline phosphatase inc in 1. Paget's dis 2. Vit D deficiency 3. albright syndrome

And dec in hypophosphatasia

Cerebral palsy oral features 1. higher incidence of periapical abscesses 2. attrition of teeth 3. Difficulty in swallowing and mastication.

Neck swelling are caused by

1. TB 2. Infectious mononucleosis 3. Hodgkin's dis:

Granulomatous inflammation is typically associated with caseous necrosis except Crohn's disease which is non-caseating type.

Edema of the glottis is the main complication of Ludwig's angina.

Most common site melanoma gingiva and palate

Most common site BCC is nose

Most common site for multiple myeloma mandibular ramus area.

Most common melanoma superficial spreading.

Least common acral

Poorest prognosis melanoma nodular

Lentigo melanoma---Hutchinson's freckle+elderly

Cancer of nasopharynx is least common site for SCC.

Tongue cancer is associated with mortality.

Overall survival rate for radial growth phase in melanoma is 100% and in vertical 70%.

SCC poorest prognosis floor of mouth.

Cancer of buccal mucosa mid way anterior posterior along the plane of occlusion.

Moth eaten appearance. 1. Osteomyelitis (radiolucency with focal opacity) 2. Ewing's sarcoma (radiolucency of medulla with erosion of cortex with expansion) 3. Burkitt lymphoma (marginated destruction) 4. Osteosarcoma 5. Chondrosarcoma

Chondrosarcoma are radioresistant

Osteosarcoma metastasis to brain and lungs

Osteosarcoma prognosis better in mandible as compared to maxilla

Most common intraoral site for Kaposi's sarcoma is palate

Most common malignancy affecting skeletal bone is metastatic carcinoma

Diagnosis of metastatic carcinoma in difficult cases can be verified by immunoperoxidase stain for cytokeratin,

No gum chewing in MPDS

Merkel-Rosenthal syndrome---fissured tongue+cheilitis+facial paralysis

Ramsey Hunt syndrome---facial n paralysis+geniculate ganglion+herpes zoster

Bells palsy and trigeminal neuralgia are more common in Multiple Sclerosis

Brachial cyst counterpart lymphoepithelial cyst

Nasopalatine ductal cyst also known as incisive canal cyst

Median palatal cyst posterior presentation of nasopalatine cyst

Soft tissue variant of nasopalatine cyst is palatine papilla. (infra bony counterpart)

Albright syndrome

1. Polyostotic fibrous dysplasia 2. Café au lait spot 3. Precocious puberty

Gardner syndrome complication adenocarcinoma

Monoostotic fibrous dysplasia and craniofacial lesion have greatest potential for malignant transformation and radiographically increase the risk by 400 fold

Eruption cyst is soft tissue variant of dentigerous cyst.

Granuloma and cyst can be differentiated histologically only.

Gingival cyst of adult hood soft tissue counterpart of the lateral periodontal cyst.

Salt and pepper type pattern-----calcifying odontogenic cyst.

Glandular odontogenic cyst most common in mandible.

All the cysts arise from rest of dental lamina except dent cyst which arises from reduced enamel epithelium and radicular cyst which arises from rest of Malassez.

Radiographically Ameloblastoma appears similar to central giant cell granuloma.

Loss of differentiation in ameloblastic carcinoma.

Cementifying fibroma is similar to ossifying fibroma.

Ameloblastic fibroma and fibrodontoma mostly in children and young children.

Eisenstein rings-----calcifying epithelial odontogenic tumor.

Multicystic ameloblastoma-----surgical excision or resection

Unicystic-----enucleation

Semilunar radiolucency-----SQ odontogenic tumor

LKB1 mutation-----Peutz-Jeghers syndrome

Bismuth line marginal gingiva

Lead line—dark marks on gingiva

Drug induced hyperpigmentation---minocycline, cyclophosphamide, chloroquine, azidothymidine

Melanocytic macule----gingiva

Congenital nevi most common malignant transformation while acquired nevi more common than congenital

Focal melanosis in oral cavity no treatment

most common site for erythroplakia-----mucobuccal fold

Raspberry like appearance pyogenic granuloma

Peripheral giant cell granuloma most common location gingiva

How to differentiate between hemangioma and hematoma by blanch test, hemangioma will blanch on diascopy while hematoma do not.

Warthin tumor almost exclusively parotid tumor

Necrotizing sialometaplasia-----no treatment, healing usually occurs in 6-10 weeks

Mumps acute phase salivary amylase inc

Stafne idiopathic cavity contain submandibular gland not sublingual

Maxillary sinus retention cyst and pseudocyst require no treatment

Ranula mostly to sublingual less to submandibular

Sialolithiasis can occur in Sjogren syndrome

Sarcoidosis commonly involved organ lungs

Acinar cell carcinoma (Warthin tumor)-----honey comb cytoplasm.

Most aggressive salivary gland tumor-----Adenocarcinoma

1st MC salivary gland tumor mucoepithelioid carcinoma and 2nd MC is acinar cell carcinoma

Swiss cheese pattern -----adenoid cystic carcinoma (cribriform pattern)

Major salivary gland Mucoepithelioid carcinoma

Minor salivary gland—adenoid cystic carcinoma 2nd low grade adenocarcinoma

Most of the tumor that occurs in parotid are benign.

Sjogren syndrome...low wbc and c3 and c4 dec

SLE-----butterfly shaped rashes, and ANA and LE test are positive. host response to malignancy is best reflected by lymphocytic infl at the edge of the tumor.

Target lesion/Bull's eyes---erythema multiforme

Triad of Stevens-Johnson syndrome...stomatitis, eye lesion, genital lesion

Vesicular lesion do not precede the formation of ulcers in aphthous stomatitis..while in viral aphthosis is true.

Behcet's syndrome..aphthous major+genital ulceration+eye lesion+skin lesion

In histoplasmosis-----ch non healing ulcer+lung infection,, in dissimination form oral inf may be 1st sign. And Rx anti fungal for 6-12months

Scarlet fever—strawberry tounge, inflamed fungiform papilla

Highly infectious stage of syphilis is secondary.

Congenital syphilis protected up to 16th week

Copper colored vesicles on palm and soles.....congenital syphilis

1mL of 2% lidocaine contains 6 mg of NaCl and 1mg of methyl paraben and 0.5mg of sodium meta bisulfate

100ppm= 100mg/L=.1 gm/100ml= .01%

The conversion goes:

.05% Fluoride * 10,000= 500 ppm

Adolescents do not benefit from TSD. TSD is intended for children to remove fear and allow treatment. This technique works well with apprehensive children, mentally challenged children and challenged adults.

Ibuprofen should also be used with caution in people who are 65 or over, because they are at increased risk of developing more serious side effects.

1.Centric glide or interferences: movement of the mandible while in centric relation, from the initial occlusal contact into maximum intercuspation.

There is premature contact between mesial inclines of max teeth and distal inclines of mand. teeth

CORRECTION: A centric interference (forward slide) can be corrected by grinding the mesial inclines of maxillary teeth and distal inclines of mandibular teeth.

2.Protrusive interference

- anterior movement of the mandible from max inter cuspsation towards the incisal edges

-occurs when distal facing inclines of max posterior teeth contact mesial inclines of mand. posterior teeth during a protrusive movement(DUML)

CORRECTION: distal of upper and mesial of lower

3.Retrusive is opposite of protrusive.

4.Working side interference

- occurs when there is contact between max. and mand. posterior teeth on the same side of the arch in the direction the mandible moved causing disclusion of teeth

- Working side interferences generally occur on the inner aspects of the lingual cusps of maxillary molars.)

CORRECTION: BULL RULE

5.Non-working side interference(balancing side)

- occlusal contact between max. and mand. teeth on the side opposite the direction the mand. has moved

- results when there is contact between max. buccal facing inclines of palatal cusp and mand. lingual inclines of buccal cusp on the non-working side

CORRECTION: Grind the secondary centric holding cusps(Grind the inner inclines of the mandibular buccal cusp) Never grind the maxillary lingual cusps (primary centric holding cusps)..

For the National Board Exam questions, you can reduce the maxillary lingual cusp if it is high in centric as well as other occlusal positions -> in reality, you should not

Retention grooves in class v restoraion for direct gold not needed as the preparation, itself provides retention by facial

Betel quid and smokless tobacco increase chances of SCC and verrucous carcinoma

Causes of MACROGLOSSIA

Inflammatory-----glossitis

Traumatic-----post operative edema

Metabolic causes-----myxedema, amyloidosis, lipoid proteinosis, chronic steroid therapy

And acromegaly.

Congenital causes-----cretinism, hemangioma, lymphangioma, down's syndrome, Beckwith-Wiedemann syndrome, generalized gangliosidosis syndrome, mucopolysaccharidosis.

Decreases alkaline phosphate in hypophosphatasia, also pernicious and aplastic anaemia, cml

1. ant mandible, teeth vital, ant mandible, black females- periapical cemental dysplasia
2. focal cemento osseous dysplasia- post mandible, caucasians
3. florid cemento osseous dysplasia when involving both maxilla and mandible

Pulmer vinson syndrome..KAIDS_ koilonychia,atrophy of buccal,glossopharyngeal,eso membranes,iron deficiency,dysphagia, SCC

Daily secretion of adrenal gland is 20mg while in stress situation it is 200mg

Severe adrenal insufficiency during surgery-----adrenal crisis-----CVS collapse----DOC is im/iv hydrocortisone.

Target lesion/Bulls eyes-----erythema multiform.

Greater palatine foramen.....1.distal to maxillary 2nd molar. 2. 5mm anterior to vibrating line 3.halfway between the gingival margin and midline of the palate.

Incisive foramen-----nasopalatine nerve+sphenopalatine artery

Cleft lip left side more involved

Tri germinal neuralgia----Right side more involved.

The retrodiscal tissue is highly vascularized and innervated, whereas the articular disc for the most part is not. Only the extreme periphery of the articular disc is slightly innervated.

MC location for sinusitis is maxillary sinus and rare one is sphenoid.

Ethmoid sinus.....orbital cellulitis and meningitis

Sphenoid sinus.....cavernous sinus+pituitary+meningitis

The lateral pterygoid muscle forms the roof of the pterygomandibular space.

The inferior alveolar nerve passes lateral to the sphenomandibular ligament so likely to be damaged during IAN block

Spheno+ stylo-mandibular ligaments-----accessory ligaments....limitation of mandibular movements

Temporomandibular ligaments.....main stabilizing lig of TMJ-----prevents the inferior and posterior displacement of condyle.

Collateral ligaments....stabilize the disc

Deviation of mandible on Same side in

- 1.ankylosis 2.trauma 3. Condylar fracture 4. Lateral pterygoid muscle injury on same side

Deviation of mandible on OPPOSITE side in

1. condylar hyperplasia

Wharton's duct is closely related to lingual nerve which crosses over it.

Posterior maxillary artery supplies the maxillary premolar, molar teeth and maxillary sinus.

Mandibular condyle and articular eminence in TMJ are covered by fibrous connective tissue.

Opening of submandibular duct-----sublingual caruncle.

Carotid sheath----CIVIL

Functional part in TMJ.....condyle and articular eminence

Non functional part.....glenoid fossa

Blood supply of TMJ.

Anterior portion.ant lateral pterygoid artery

Posterior.....sp temporal and maxillary artery

Nerve supply of TMJ

Capsule.....auriculotemporal nerve

Anterior region..masseter and deep temporal nerve

TMJ...extreme periphery,capsule and synovial tissue are richly innervated. While articular cartilage and central portion has no nerve supply and retrodiscal tissue richly innervated

Upper motor neuron lesion-----contralateral side+atrophy

Lower motor neuron lesion-----same side +atrophy+ fasciculations

Submandibular gland-----sublingual canalicule and sublingual gland-----sublingual fold

Opposite to tip of greater cornu of hyoid bone-----lingual artery

Close mouth technique(vazirani-alkinosi)-----IAN+incisive+mental+lingual+mylohyoid

Gow gates technique...IAN+lingual+mental+incisive+auriculotemporal+buccal+mylohyoid nerve blocks

PSA nerve block also known as tuberosity or zygomatic block-----hematoma formation

Reduced cardiac output is the main factor in all types of shock.(inc adrenergic response, inc heart rate, inc peripheral vascular resistance, mental status changes, myocardial ischemia)

As a general anesthetic NO lack of potency.

NO cylinder blue and Oxygen green cylinder.

Disadvantages of NO-----misuse, nausea, diffusion hypoxia, not a complete pain reliever so

Local anesthesia is also required.

Local anesthesia.....more protein binding or more lipid solubility inc duration of LA.

LA-----lower Pka----more free base form available-----rapid onset of action

LA---inc Blood flow---shorter duration of action.

Patient on tricyclic antidepressant-----avoid epinephrine

Patient on B-Blocker----epinephrine---causes inc blood pressure and bradycardia

The addition of vasopressor and anti oxidant in LA causes reduce PH and causes burning sensation at the injection site.

Adverse effects of LA are related with

- 1.Toxic dose
2. Intravascular injection
3. Rapid injection

Epinephrine dose

Normal patient-----0.2mg/200ug or 11 cartridges

CVS patients-----0.04/40ug or 2 cartridges

O₂ is indicated for the treatment of all types of syncope except hyperventilation syndrome.

PSA nerve block-----causes hematoma formation-----can be reduced by using short needle.

Colour coding of needles... Red 25#, Yellow 27#, Blue 30#.(25 is preferred)

Larger gauge (smaller diameter)has advantages..

1. Greater accuracy
2. Less deflection
3. Do not break

Hyperventilation syndrome can cause carpopedal spasm

Most important function of vasoconstrictor in LA is inc the depth and duration of action.

Affinity for epinephrine 50% Alpha and 50% Beta.. while levonordefrin 75% Alpha and 25% Beta..(ep is more potent than L)

LA-----blockage---different size---smaller unmyelinated fibers 1st than larger myelinated fibers or same size than myelinated fibers 1st and unmyelinated later

And size of nerves-----smaller size 1st fail to conduct than larger size

Firing frequency-----higher freq (eg pain) 1st blockage as compare to lower frequency (motor)

And A delta fibers and C fibers has higher freq so 1st blockage as compare to A Alpha fibers..

Procaine is not available in North America

Most common side effect of methohexital is Hiccoughs caused by rapid injection of brevital.

Thiopental-----dose=3-5mg/kg, induction less than 30seconds, slow recovery, half life 6-12H

Methohexital-----1-2mg/kg, induction less than 20sec, rapid recovery, half life 3 hours.

The most effective agent in the initial treatment of respiratory depression due to the over dose of barbiturates is oxygen under positive pressure.

The most common early sign of syncope is pallor.

Neurolept anesthesia-----neurolept+narcotic+NO(un con)

Neurolept analgesia-----neurolept + narcotic (con)

Neurolept agents----dopamine----1. Antiemetic 2. Alpha blocking activity 3. Reduce anxiety

Primary health hazard for an unconscious patient in supine pos is tongue obstruction.

Causes of trismus

trauma to muscles or blood vessels in the infratemporal fossa,

hematoma formation,

localized muscle necrosis secondary to the anesthetic drug or vasoconstrictor,

infection in the fascial space,

introduction of a foreign body.

MC complication associated with NO sedation is behavioural problem.

MC cause of peresthesia of lower lip is removal of mandibular 3rd molar(horizontal impacted)

pin most perforate on mesial side of mandibular 1st molar .

Platelets COUNT. Intraoperative bleeding 40-70K, <20K—spontaneous bleeding

Platelets required for surgery 75K

Hematocrit required for surgery===30%

Local anesthesia contains

6mg of NaCl, 0.5mg of sodium metabisulfate and 1mg of methylparaben

Increasing the PH of LA speeds the onset of action, effectiveness, and make it more comfortable.

Lidocaine and procaine direct CNS depression rather than excitatory phase.

NO has main effect on reticular activating system and limbic system.

Site of action of LA is at lipoprotein sheath of the nerves

Most resistant part-medulla oblongata.

Desflurane-----heating component to allow delivery at room temperature.

Sevflurane mostly in children

COPD....NO contraindicated but we can give volatile anesthetics.

Volatile anesthetics-----bronchodilator, vasodilator and cardio suppressant

Rate of injection of valium is 1ml/min(1ml=5mg)

Intraarterial injection during I/V sedation-----burning sensation, blotchy appearance and weak pulse.

Ketamine-----inc sympathetic output----inc heart rate, inc Bp, inc CO, bronchial muscle relaxation and also inc resp secretions and cerebral vasodilatation.

Diazepam-----5-10mg PO,, promethazine 25mg PO

Pento and Secobarbital ----50-100mg PO

If hypotension is due to narcotics than DOC is Narcans. And in bradycardia DOC is Atropine.

Cause of Postoperative hypertension is/are

Post-op pain, Hypercapnia, Anxiety, Overdistention of the bladder, Hypoxia

Last part of CNS to be depressed during GA is medulla oblongata.

Oxygen want-----inc pulse rate

GA contraindication-----acute resp infection

Endotracheal intubation with pharyngeal packs to avoid aspiration in GA

Most frequent complications following O and M surgery..

Pulmonary Atelectasis (in smokers)

Aspiration pneumonia (right side)

Pulmonary embolism (DVT)

Biopsy-----10% formalin(4% formaldehyde)-----20 times greater than volume of S specimen.

No other solution is acceptable

Ventricular ejection fraction below 50% indicative of-----CHF

CHF----- Avoid NSAID, aspirin, Ca channel blocker

Stridor.....laryngeal obstruction

Patient have GA 2 most common causes of fever 1.pneumonia 2.atelectasis.

Tracheal deviation-----pneumothorax

Most common PO complication of outpatient GA is nausea.

Management of atelectasis is 1. Spirometry 2. E.suction 3. Bronchoscopy

In COPD...aspirin should be use with caution inc chances of Hemoptysis and also erythromycin should be avoided bcz of theophylline toxicity

90% type 2 DM

Aspirin causes respiratory alkalosis

In asthma...avoid anti histamine, minimize epinephrine dose , avoid aspirin and avoid erythromycin and clarithromycin if pt also taking theophylline

Hemophilia C-----rosenthal's syndrome-----not a sex linked and def of factor 11

PT increases in warfarin,liver diseases, vit-k deficiency, antibiotics, and fat malabsorption while PTT increases in Heparin, von willbrand disease, hemophilia

Patient with COPD and Cystic fibrosis should be treated in upright position.

Nephrotoxic drugs should be avoided in kidney failure patients which include aspirin,NSAIDs, acetaminophen, morphine, meperidine

Most commonly used benzodiaz: is midazolam and most potent is lorazepam. Midazolam most soluble,rapid onset, short duration while lorazepam least soluble slow onset and longer duration.

Talwin compound=aspirin+pentazocine

Barbiturates are contraindicated in pregnancy and respiratory depression

Benzodiazepens are used for pre-operative medication, i/v sedation, induction of anesthesia, maintenance of anesthesia, suppression of seizure activity

Meperidine -----moderate to severe pain, pre-op sedation, post-op analgesia, obs: anesthesia, supportive anaesthesia'

Meperidine with MAO inhibitor-----concomitant administration contraindicate,----can cause seizure or coma. Also meperidine effectiveness dec: in the presence of phenytoin

Anticholinergic drugs contraindication. Glaucoma, intestinal obstruction and prostatic hypert:

Atropine causes mydriasis and cycloplegia.

Uses of barbiturates-----anesthesia, anticonvulsant, anxiety.

Phenobarbital-----tonic-clonic seizures, status epilepticus, eclampsia.

Sequence of extraction----posterior than anterior and maxillary than mandibular

Acute dentoalveolar abscess is not a contraindication to extraction.

Maxillary teeth extraction-----Primary direction of laxation

Deciduous-----palatal permanent ----buccal

Do not use cowhorn forcep for extraction of mandibular primary molar.

Isolated maxillary molar-----extraction-----complication can occur such as tuberosity fracture and alveolar process fracture

IF genial tubercle removed-----flaccid tongue.

Basically GTR are indicated in following conditions: 1) Class II furcations 2) Class II and III intrabony defects 3)Recession.defect 4)Alveolar ridge augmentation 5) Repair of apicectomy defects. Contraindications are: 1) In cases where flap vascularity is compromised 2) very severe defect minimal remaining periodontium 3) Horizontal defects 4) In cases of flap perforations

In maxillary torus removal stent should be placed to prevent hematoma formation and support the flap

Tooth sectioning with straight bur no 8 or fissure bur no 557 or 703

LUXATION forces perpendicular to long axis of tooth.

Tooth extraction-----class 2 lever

Single maxillary molar-----possibility of ankylosis-----floor of maxillary sinus 8 risk.

OAC

2mm---nasal precautions+sneezing open mouth+antibiotics+local decongestant+sys decong

2-6mm----figure of eight suture

7mm—flap procedure

Cancer of the other part of the body metastases most commonly to?

o Bone:Molar region of mandible

o Soft tissue: attached gingiva then tongue

o Breast cancer is the most metastatic to the oral cavity appearing in the mandible

o then lung cancer is the second appearing in the soft tissue.

SUTURES---intraoral 3/0, 4/0 extraoral 6/0

3% hydrogen peroxide -----intraoral debridement

Resorbable suture.....plain gut 8 days, chromic gut 12-15 days and synthetic—30days(polyglycolic acid)

Resorbable suture----silk and cotton suture

Resorbable suture...intense inflammatory reaction thats why we avoid on skin

Pt on anticogulant therapy-----non resorbable

Periosteum must be reflected as integral part of the flap

Flap should be closed over bone if possible.

Teeth are resistant to crush but not shear

Distilled water-----not used for irrigation bcz its hypotonic

Root of zygoma-----interfere with removal of max 1st molar.

but interarch distance is 7mm for posterior and 8-10 for anterior teeth

CYANOACRYLATE Yes it is tissue adhesive, hemostatic and bacteriostatic.. so used in perio dressing

Canine region----post inferior displacement of condyle-----digastric, mylohyoid, geniohyoi, and genioglossus

At the condyle-----lateral pterygoid-----ant medial

At the ramus-----medial pterygoid+masseter+temporalis=ant superior

Sub condylar #an medial higher condylar #horizontal and vertical

Maxillary# greater chances of deformity as compare to mandibular deformity WHILE in mandibular # Malocclusion

15-24yr----young ---most chances of #

Most common # zygomatic maxillary

Normal healing time in bone fracture—6 weeks,\

Cervical spine # with mandibular # following radiograph should be considered.....

Lateral view, CT, PA view

In adults # mostly: nasal---zygomatic-----mandibular-----maxillary while in children: frontal—orbital

ZMC #-----x-rays-----PA oblique waters view, reverse waters, submento vertex but gold standard is CT

ZMC#-----infraorbital nerve damage, superior orbital fissure content damage

Most feared rare complication ZMC # is blindness

Rigid fixation-----plates,screws and pins

Semi rigid-----mini plates and wires

Non rigid-----IMF

Lefort type2-----pyramidal#

ZMC #-----tri pod #

FLAPS SUMMARY

Trapezoidal--->provides excellent access on more than 1 tooth but disadvantage is gingival recession.

2)Triangular--->provides satisfactory visualization,provides adequate blood supply and used to surgically remove small root tips.

3)Envelope/Sulcular--->used for surgery incisions on edentulous ridge for removal of mandibular tors.

4)Semilunar--->provides great access to apical root tip,used mainly in apicoectomys but disadvantage is poor access and visualization.

5)Y-incision--->removes a maxillary palatal torus.

Mandibular angle # more complication as compare to angle or symphysis which includes delayed union, fibrous, union malocclusion.

Bilateral condylar #-----ant open bite+inability to protrude the mandible.

Unilateral condylar#-----forward displacement of head of condyle..

Rescue breathing-----1breath every 5seconds or 10-12 breath/min

Chest compression-----depress the sternum---1.5-2 inches and 30 compression every 2 breath---100/min

Most of the oral bleeding can be controlled by pressure pack.

Rescue breathing in childrens after every 3 seconds and in adults after 5-6 seconds

Compression rate 100/min

Compression/ventilation ratio 30/2

Compression depth: 1.5-2inches in adults while in children 1/3rd to 1/2of depth of chest

Organ donor-----6 class

Too much pressure on xyphoid -----liver damage

Most common error in BP-----too large or too small cuffs

TO be good candidate for surgery-----PT should be in b/w 5-7

Orthodontic therapy has been shown to increase plaque retention and increase the numbers of :

A) purple complex bacteria

B) bacteria that increases in pregnancy women

C) prevotella melaninogenicus

Costochondral graft in -----TMJ,Condyle. If in ridge augmentation can cause shrinkage

BMP-----osteoinductive potential

Autogenous bone graft-----inductive+conductive and genic potential

Cortical bone graft---advantages-----structural similarity and BMP. Disadv: lamellar structure.

Cancellous B>G-----adva: rich cellularity dis adv:-----dose not posses structural similarity

Autogenous bone graft-----osteoconductive +inductive+genic potential

Allograft-----3 types

1.fresh frozen-----rarly used b/c of transmission of disease

2.freez dried-----osteoconductive potential only

3.deminralized freeze dried-----lack strength+osteoconductive+inductive potential(b/c of BMP exposed)

Sliding genioplasty-----MC complication-----neurovascular disturbance

Alloplastic material in genial defficiency-----

1.migration of A.M 2.unpleasant sensation. 3.erosion of chin prominence

Greatest osteogenic potential-----autogenous cancellous graft and hematopoitic graft.

Cadaver bone-----allograft and animal bone -----Xenograft.

Alloplast-----synthetic material

Minimum 10mm of bone height is required for dental implant

IAN and IMPLANT distance 2mm

The highest failure rate of implant in posterior maxilla D4.

Minimum amount of space required for 4mm dental implant is 7mm(4+1.5+1.5)

Most popular implant is root form.

Implant of choice in very atrophic mandible is.....transosseous mandible

When there is adequate length/depth but insufcient width-----blade form implant we use.

Maxillary 3rd molar.....infra temporal space

Mandibular 3rd molar-----masseter space

Mandibular molars +premolar-----bucal + submandibular+sublingual+pteregomandibular space

Temporal space-----infra temporal+ masseter +pterego mandibular space

Masticator space-----temporal + pteregomandibular space

Most common space is vestibular space

Canine and temporal space can cause CS thrombosis via ophthalmic vein.

Lateral pharyngeal-----retropharyngeal-----prevertebral fascia space-----mediastinum

Trismus-----masticator space involvement-----most consistent sign

Submandibular space is cont with lateral pharyngeal space

More accurate method of body temperature measurement---rectal and least is axillary

1c rise in temperature-----10 beats inc:

D/water-----hypotonic-----not used as irrigant-----causes cell lysis

Criteria for referral to oral surgeon

Rapidly progressive swelling, temperature >101, trismus <10mm, difficulty in breathing and toxic appearance, facial space involvement

Antibiotics in----immunocompromised patients, rapidly progressive swelling, sever pericoronitis, osteomyelitis, involvement of facial spaces, diffuse swelling.

Frenectomy-----wide based---V Y advancement and narrow based-----diamond excision and Z-plasty

CS thrombosis---veins---inferior ophthalmic vein and angular vein ant

Pteregoid plexus of vein and trasverse facial vein post

3,4,V1,6 CN -----passes via CS

Abcess is chronic and aerobic bacteria while cellulitis is acute anerobic bacteria.

Auto transplantation -----Most important criteria for success is adequate bone support.

Cricothyrotomy-----in emergency situation of laryngeal obstruction(stridor or crowing sound)-----not tracheostomy(not emergency procedure but its long term aiawar maintenance)

Platelets count 30k-----emergency procedure can b performed

Columbia universal currette used in Gingival curettage

DD for cancer

Candidiasis

Chancroid

Condyloma Acuminata

Drug Eruptions

Genital Warts

Granuloma Inguinale (Donovanosis)

Herpes Simplex

Herpes Zoster

HIV Disease

Lymphogranuloma Venereum (LGV)

Urethritis

Urinary Tract Infection, Females

Urinary Tract Infection, Males

Urinary Tract Infections in Pregnancy

Varicella-Zoster Virus

Yaws

Enamel hypoplasia-----histo diff

Hypomaturation-----aposition

Hypocalcifeid-----calicification

Germination and fusion...both are in primary incisors common

Dilacerations is consistent finding in Congenital ichthyosis.

Enamel hypoplasia-----more susceptible to dental decay and sensitivity.

Risk of fluorosis-----excess of 3ppm

Thistle tube shaped pulp chamber with multiple pulp stone-----dentinal dysplasia type 2

TSD especially useful when treating a child with different cultural back ground

Anger is easier to treat than fear

Fear-----parents sits behind the chair, identify the fear,focus of fear and lastly sedation.

White-knuckler-----tense cooperative

Most common pre-medication prior GA is VERSED

Less than 2 years-----uncooperative

2 years-----TSD

3-7years-----generally cooperative

8years and older-----usually cooperative

Rubber dam-----aid in the management of the child and quite and calm the patient

Minimum oxygen flow rate----3L/min

MAC—105% and maintenance dose-----30-35%

Scarlet fever-----enlargement of fungi form papilla

Diphtheria is contagious

Predominant condition noted in adolescents is gingivitis not periodontitis

Localized aggressive periodontitis-----puberty, familial pattern, incisor and molar, AA, absence of plaque.
Cleft palate more in females and cleft lip more in males
Ectodermal dysplasia-----sex linked recessive disorder
Cellulitis in child is more difficult to treat as compare to adults
3 STAGES of odontogenic infection
PERIAPICAL OSTEITIS, CELLULITIS AND SUPPURATION
SBE prophylaxis is required for dental treatment
In apert syndrome-----mid face retrusion-----lefort 3
Radio graphically beaten coper skill-----crouzon syndrome
Mandibular prognathism,-----downs syndrome, apert syndrome, achondroplasia
Cleft palate.....apert syndrome and treacher Collins syndrome, robin perirer syndrome
10-14mm mi. implant length
5 mm implant ant. to mental foramen
2 mm away from vital structures
3 mm between implant and implant
2-4 soft tissue height surrounding implant
1.5 mm between implant and tooth
1-1.5 mm around implant in all directions
Teeth are reddish brown and fluoresce under ultraviolet light-----porphyria
Yellow or green dis of teeth-----vitamin excess
Tetracycline effects teeth that have not completed enamel formation.
Infants should be weaned from the bottle at 12-14months of age
1st primary tooth-----primary hygiene starts
With in 6 months of eruption of 1 primary tooth-----1st dental visit
Patients with aphthous ulcer should be screened for DM and Bachet`s syndrome
Cystic fibrosis-----halitosis and dental development and eruption are delayed
patient had xerostomia need restoration FDP
cystic fibrosis-----early morning appointment are not recommended, avoid GA, upright position, short appointments,
enamel hypoplasia, lower lip everted,dental development and eruption delayed.
Kopliks spot-----measles
Petechiae like spot on soft palate-----rubella
Ulceration of oral mucosa and pharynx-----small pox
ADHS-----doesnot need any special treatment
Oxygen no less than 20% in nitrous oxide.
Bite wing radiograph-----angulation 10*
Maximum dose of LA is 300mg
In chilldrens sedative mostly-----chloral hydrate
Chloral hydrate-----bitter taste and GIT irritation
Fluoride rinse more effect on newly erupted tooth. And fluoride more effects on smooth surface than oclusal.
Pea size tooth paste contain .75g paste and 0.4mg fluoride.
Carries activity is directly prop to consistency, frequency and oral retention.
PH=====APF -----3.0-3.5, Sodium fluoride-----9.2
Rule of 6 for fluoride...

If water flourid is more than 0.6pp no fluoride supplementation

If the age of child is less than 6months or more than 16 years-----no fluoride supplementation

APF-----gel form in tray-----applied for 4 minutes(if a child vomit than 2min +1min)

Ipecac syrup is used to induce vomiting, in flouride toxicity

Cariostatic effect of fluoride is produce during calcification stage of tooth development

CEMENTUM tends to increase with age.

Labial eruption path-----inadequate attached gingiva

Last primary tooth to be replaced by permanent tooth is maxillary canine.

Crown completion -----4-5year except canine 6year and 1st molar 3years

10years from start of calcification to apex closure

Calcification of primary teeth-----ADBCE(14,15,16,17,18 weeks)

Calcification of permanent teeth-----1st molar at birth , all anterior teeth except max latrel incisor 6months, laterel incisor 12months, 1st PM 18months, 2nd PM 24months and 2nd Molar 30months

Roots of primary anterior teeth are taper more rapidly

Calcification of primary teeth begins in 2nd trimester and complete in 3-4 years

LEEWAY space in maxilla 1.mm and mandible 3.1mm

Until the establishment of contact-----no need for bitewing radiograph in child

At the age 6---1st OPG

Most common retained primary tooth-----mandibular 1st molar

At birth child can`t differentiate b/w sour bitter and sweet.

Transverse ridge-----mb-ml-----seprates the mesial portion from rest of crown and in primary mandibular 1st molar

Primary Mandibular 1st molar-----longest cusp MB and sharpest cusp ML. no central fossa.

Primary mandibular 2nd molar----resemble permanat mandibular 1st molar---same outline cavity design for amalgam but MB.DB and D on primary are equal sixe while in perm 1st molar distal is shorter

Primary molar has more prominent facial crest of contour

Prim teeth greatest FL diameter-----of mand 2nd molar

Primary mand CI resemble perm mand LI not CI

Ant tooth having shorter incisio cervical height than MD width is prim max CI.

Cusp of prim max canine is longer and sharper than perm max canine and also MCR is longer than DCR (opposite is true for perm canine)

Primary Maxillary 1st molar occlusal pit and grove pattern is H shaped.-----varies from any other tooth in arc

Pulp therapy is contraindicated in children who have serious illness like leukemia and cancer pts

Teeth without accessible canal pulpectmy is contraindicated

SUCCESS of pulpotmy depends upon vitality of radicular pulp

Calcification of pulp-----pulpotmy contra indicate

Formocresol-----19% formaldehyde+ 35% cresol and 15% glycerin and water

Formocresol causes fixation of pulp and degeneration of odontoblasts.

Pulpotomy-----formocresol brown, glutryladehyde pink and ferric sulfate dark red.

Formocresol is fastest of all apply only 15 seconds while glutryl for 4 min and form for 5min

IAN block success ratio is more in children and antpost position of mandibular foramen is about the same or distal in children.

02 most commonly used ansthetics in children are lidocoine and mupivacaine

Primary teeth-----class 2-----no need for gingival bevel----bcz enamel rods occlusally

Premature loss of class 2 amalgam in primary teeth-----mesial migration of teeth+ loss of arch space

SS crown in child-----occlusal reduction----1-1.5mm and buccal reduction 1-1.5mm

Primary teeth are more mineralized as compare to permanent teeth.

30-60%loss of minerals-----than lesion appear on radiograph

Initiation-----induction-----missing or supernumery teeth

Bud stage-----proliferation, cap stage-----prolif,diffr, morphg,-----dense in dent, tubercle, germination, fusion

Bell stage-----hito+morphi diffran:-----macro microdontia,AI, DI,

Apposition----E dysplasia, hypoplasia, concresence and enamel pearl

Accessory root canals are formed by break or perforation in the root sheath bf the root dentine is formed

Odontogenic recurrence rate 10-30%

Damage to succedaneous perm tooth results in-----E hypoplasia, arrested growth and dilacerations

Pulpan necrosis more commom in perm teeth than primary teeth.

FORMOCRESOL AND FERRIC SULFATE are not recommended as pulpotomy agent in perm teeth.

Most injuries to primary teeth 1.5-2.5 years

Avulsed primary tooth not replanted.

Splinting for root#-----3months

Avulsed permanent tooth-----composite+arch wire----best system to use (1-2weeks)

There is no reliable vitality test in primary teeth. And primary incisor thermal test is more reliable.

Young child-----avulsion-----replantation-----blood flow is regained in 20 days

Most ectopically erupted tooth in order...Permanent max 1st molar----max canine---mand canine---mand 2nd p molar and max LI.

Heavy frenum with midline diastema and no recession of gingiva-----wait till the eruption caine-----if after eruption of canine there is spacing-----frenectomy

enamel make complet remineralization at 5.5

dentist do the treatment for 2 crown but the insurance company pay the money for one crown what is it..downcoding

Burs may be sterilized by pre-vacuum sterilization, using a steam sterilizer. Sterilize at full cycle with a dwell at 134°C minimum for 6 minutes.

Fear decreases pain and anxiety increases pain.

Nominal - mild, moderate, severe

- o Ordinal include numbers: like furcation involvement 1,2,3
- o Interval - Celcius degree
- o Ratio- e.g Kelvin degree, or BP measurement(can not be zero), PH, length(can not be negative),weight.

% of US population does not have dental insurance 65%

Class III malocclusion with cleft lip and palate is more in Native Americans > Oriental and Caucasians > Blacks.

Highest prevalence of caries = Hispanics

Highest DMFT = White (caucasian) (highest amount of restored teeth)

Highest untreated primary teeth = Hispanic

Highest untreated perm teeth = Black (African American)

Moderate periodontitis = Black males (African American)

Class II caries = Whites (caucasian)

Class III caries = Blacks (African American)

Cleft lip/palate w/ Class III occlusion = Native American

Cleft lip alone = Asian

Cleft lip in USA = 1:700 to 1:800

class 2 malocclusion : whites of northern European descent

class 3 malocclusion : Asian

Caucasians have more lip cancer while African American have more oropharyngeal carcinoma.

Anterior open bite: African American (blacks)

Deep bite: Caucasian (whites)

Indirect bonding bracket technique-----more complex, more technique sensitive and control of flash mean excess cement remove easily and its use is lingual ortho

Nance appliance-----premature loss of primary maxillary teeth

Lingual arch-----inc arch length, anchorage purpose, space maintainer

Lip bumper-----distalization of molar, uprighting of mesially and lingual tipped molars, inc arch length and interposition of soft tissue in b/w upper and lower teeth

Head gear-----modify the growth of maxilla, anchorage purpose, protract or retract the maxillary teeth and traction purpose

Head gear.. maximum----14 hours minimum 8 hours and average 10-12 hours

Orthopedic force -----250-450 and for mov of teeth -----100-200N

Whiplike spring derotate one or 2 teeth

Easiest movem----- mesially and tipping

In wires----increase the wire length-----strength dec by $\frac{1}{2}$ time, stiffness dec by cubic factor and range by Sq time. While diameter increases strength by cubic factor, stiffness by quad factor and working range is reduced by half.

PROBLEM with simple removable appliance is----lack of patient cooperation, improper activation and poor design

Maxillary incisor rotation-----in mixed dentition not treated-----treated in early permanent dentition with removable appliance

$F = \frac{d \cdot r^4}{L^3}$

Condition where bands used instead of brackets-----short clinical crown, labial and lingual attachment required, better anchorage and SS crown where incompatible bonding.

Cool glass slab for both GIC and Zinc phosphate

Elastics are always attach to brackets and arch wire and never to naked tooth

Elastics class 1-----inter maxillary class 2-----intra maxillary for class 2 maloc: class 3: intra maxillary used for class 3 maloc: and edge to edge bite class 4 cross bite

Center of resistance-----single rooted tooth----- $\frac{1}{3}^{rd}$ to $\frac{1}{2}$ from the alveolar crest to root apex and in multi rooted tooth apical to furcation.

Effects of head gear...restrict the anterior growth of maxilla, distalize the molar and extrusion of molar particularly with cervical p H G. timings female 8.5-10.5 and male 9.5-11.5

Post cross bite and mild ant cross bite should be treated as soon as possible and severe Ant cross bite in 2nd stage

Most commonly used appliance for palatal exp is hyrax type. Activation 0.25turn/day and produce expan of 0.5mm/day

Mild post cross bite in children----halvey type removable appliance with jack screw.

Q helix, W arch-----uni /bi lateral cross bite + rotating molars

Corrected ant cross bite is best retained by.....normal incisor relation

Skeletal cross bite-----smooth closure and functional cross bite caused by thumb sucking

TPA-----expansion of intermolar width, de rotation of molars, anchorage purpose and roor movement of molars

Priority impacted teeth 1st, in occlusion inter arch and in habits thumb sucking

Long face predispose the patient to class 2 and short face to class 3.

Ceph shows magnification up to 7-8%

Most stable point in growing skull from cephalometric point is Sella turcica

Adolescent growth spurt-----ulnar sesamoid or hamate bone

Mesiodense-----2 periapical radiograph and 1 occlusal

Uprighting of molar -----complication inc mandibular plane angel, open bite and loss of ant guidance

In newly born child---oral cavity 1st germ free than after 12 hours oral microflora appear and after 6 months S.mutans and sanguis present and after 5 years oral bacteria of child resembles that of adult

Serial extraction-----mixed dentition, severe class 1 malocclusion, arch length discrepancy, insufficient arch length

Compression side-----osteoclastic activity-----resorption

Tension side-----osteoblastic activity-----deposition

MD tooth movement is also called uprighting

Crown movement-----Center of rotation at apex and Root movement-----Center of rotation at crown

Primary component of attached gingiva-----collagen fibers

Post orthodontics C supra crestal fibrotomy most often performed on a rotated maxillary lateral incisor.

Supra crestal fibrotomy-mostly in rotation cases.

Otho Rx-----part time retention 12 months and full time 3-4 months

Cranial vault-----intramemb-----suture, periosteum

Cranial vault-----cartilagenous-----endo chondral

Endochondral ossification does not affected by growth of surrounding tissue like cranial base doesn't affected by brain IN CONTRAST cranial vault is affected by brain b/c its intramem it means endochondral is affected by genetic influence and intramem by surrounding structure

At birth greatest dimension of face width.

Inter sphenoidal---3 years, sphenoidal---7 years and sphenoidal later ages

Cranial vault, maxilla, mandible---intra membranous

Cranial base(E,O,S), long, short-----endochondral

Patient skeletal growth pattern-----most important factor is heredity

Deposition and resorption may not occurs in equal amount

Interstitial growth-----nasal septum, mandibular condyle and sphenoidal occipital synchondrosis

V shaped principle-----mandibular condyle

Bone-----appositional and cartilage-----interstitial

Major site of vertical growth in mandible is condyle

In infancy primary molar is located at about the spot where primary 1st molar will erupt

Maxilla-----increase in arch length-----deposition at maxillary tuberosity and resorption with in max sinus

Maxilla-----downward(deposition) and forward(resorption)

Maxilla follows neural tissue and mandible genital tissues

Growth spurt-----girls 12 and boys 14

Space closure is least likely to occur following early loss of primary maxillary central incisor

Deglutination affects mandibular growth

Width of the jaws before growth spurt and length of jaw during G spurt

Impacted canine-----missing lateral incisor or short roots

UPRIGHTING molar 6-12 months and stabilization 2-6months(simple UR 2months and with surgery 6months)

Severe lingual tipped molar---more difficult to upright

Osteoclastic activity is more important than osteoblastic activity

Arch perimeter after perm incisor eruption in mandible is non existent and in maxilla its lil

Malocclusion are more readily identified in children 7-9years

Angel class-1 70% and class-2---25% and class 3---5%

Ant open bite early diagnose is essential as it is not self correcting

Bulls dogs----class 3 and nasolabial angel should slight perp or slight obtuse

As the children matures there profile become less convex

Class 3 malocclusion-----difficulty in f and v sound

Class 2 malocclusion-----retrognathism and over bite

Incidence of malocclusion in homogenous population is lower.

Sunday bite.....patients with skeletal class 2----bring the mandible forward to improve the appearance

Pathologic occlusion can cause-----TMJ problem, wear facets, pulpal changes, periodontal changes

Premature exfoliation of primary teeth-----hyperparathyroidism

ANB*-----less than 4 class 1 and more than 4 class 2

Tongue thrusting cant be blamed for open bite

Negative pressure created from suckling doesnt causes maxillary constriction, but actually force of buccinator

Anterior open bite can cause tongue thrusting but reverse is not true.

Terminal plane relationship of primary mand 2nd molar determines the future ant-postposition of 1st permanent molar.

Mesial step -----class 1, flush terminal if late mesial shift occurs it develops on class 1 other wise in class 2, and in distal step it develops in class 2.

Early mesial shift uses primate spaces and late mesial shift uses LEEWAY spaces.

Oral lesions may be an early manifestation of leukemia, pernicious anemia. , infectious mononucleosis

All the permanent teeth erupts lingual to primary teeth except mandibular canine which erupts facial to mandibular canine.

For maxilla and mandible growth in width is completed 1st than length and height

Over jet 2-3mm and Over bite 10-20%

Supervision of child development of occlusion most critical during mixed dentition stage.(7-10years)

Characteristic of mixed dentition-----class 1 molar and canine, leeway space, well aligned incisor with moderate crowding and tight contact.

Permanent teeth move buccally and occlusally while erupting.

Serial extraction contraindication-----deep bite

Flat bone of the skull and part of clavicle are formed by intramembranous bone formation.

Approximate force for anchorage-----250g 10h/day and for traction 500gm 14-16h/day

effective dosage for lateral cephalogram 3-7

in prosthodontics:

* Retention.....> retentive arm of clasps (direct retainer)....against vertical occlusal forces and resistance of metal deformation

*Support.....> rest (indirect retainer)against vertical forces

*Stability.....> alveolar ridge + harmonious occlusion ...against horizontal forces

*Reciprocation (cross-arch stabilization).....> rest + minor connector + reciprocal clasp arm.

*Bracing.....> clasps in non-undercut area (occlusal rest-minor connector junction should be acute < 90 degree for max. bracing.

Classic symptoms of suckling habits....proclination of maxillary incisors, retro of mand incisors, class 2 malocclusion, cross bite, ant open bite, and narrow max arch

Russell bodies in peri apical granuloma

Odour of acetone on the breath may indicate bronchiectasis, rhinitis, salicylate poisoning, DM.

Children in primary dentition most often present with dec overbite.

Moment $M = F \cdot d$

CONCIOUS SEDATION-----minimally depressed level of consciousness ,retain the ability to maintain airway respond to physical stimulation

Ortho 1st than frenectomy

equivalent dose = absorbed dose * qualifying factor

Effective dose estimate risk in humans

Radiations---- 1/3rd by direct damage-----ionizing radiation and 2/3rd by free radical formation means indirect damage

Stochastic effects-----direct function of dose----increase dose-----increases occurrence but does not severity increases
eg.carcinoma

Non-stochastic effect-----somatic effect---increase severity with increase absorbed dose eg erythema etc

Young bone, Liver, kidney and salivary glands are radio resistant

Effects of radiations are not visible immediately.

Effects of radiation exposure are additive.

Cell nucleus is more sensitive than cytoplasm,

Radiation causes cell death by-----apoptosis, chromosomal abnormalities, preventing successful mitosis

3H in osteoradionecrosis-----hypo cellularity, hypoxia, hypo vascularity.

No effects on embryo or fetus from low doses radiation uses in dental radiography.

Radiation induced cancer not distinguishable from cancer caused by other factors

Radiotherapy-----tumor in advanced stage, deeply invasive, radiosensitive.

Radiation-----xerostomia persisted beyond a year less likely to show return of the function.

Number of electrons is controlled by temperature of tungsten filament/Ma

Dental radiography-----mA---7-15mA and KVP 65-100(digital 8-40kvp)

Higher KVP-----greater energy levels, shorter wave length, more penetration and less absorption

To increase the film density-----increase mA, KVP, decrease the source object.

Intensity of radiation is inversely proportional to square of distance.

Half value layer determine the penetrating qualities....direct relation

KVP-----control quality, velocity, contrast

Unclear area on radiograph -----penumbra

Sharpness can be increased by-----reducing focal spot size, slower film, less movement, increasing the distance between focal spot and object and decreasing the distance between film and object

Optical density-----0.4 enamel and dentine 1 and soft tissue 2.0

Exposure time is measured in impulse because x-rays are created in series are burst/pulse rather than continuous:

60 impulse in one second

Latitude and contrast are inversely related.

Aluminum disc-----filter higher wave length and lower penetrating xray beam

Copper in anode-----good thermal conductor-----dissipating heat from tungsten target—reduce the risk of melting

Atom maximum contain seven shells and K has highest energy level

x-rays are electromagnetic radiations

Ampicillin, methicillin and penicillin G cannot be given orally

Function of added filtration is to remove the longer wave length and shorter energy beam because they are harmful to the patients

Filtration reduce the patient dose, decrease the contrast, increase the density of film

x-ray beam is polychromatic.

Radiation we receive from outer space is called cosmic radiation

Maximum permissible dose-----non occupation 0.1 rem/year and occupation-----5rem/year and pregnant

women+occupation-----0.1 rem/year

Primary risk of dental radiography-----radiation induced cancer.

Set the mA to highest level and KVP 70-90kvp
mA and exposure time are inversely related
operator 90-135* to the beam and 6 feet distance
aluminum disc-----filter out longer wavelength rays-----increasing the overall quality of beam
film placed posteriorly in mouth-----diamond effect or herring bone defect.
Operator can't control the size of the focal spot
Incorrect vertical angulation-----excessive vertical angulation causes foreshortening and insufficient vertical angulation causes elongation
Incorrect horizontal angulation causes-----overlapping
Cone cutting-----portion of the film will appear clear with the curved line
Paralleling technique-----long cone-----increase exposure time
Poor contrast-----high KVP
Blurred vision-----patient movement or drifting of X-ray arm
Paralleling technique/ long cone technique-----greater definition and less image magnification
Exposure time increased in paralleling technique and in bisecting technique it actually decreases
Bisecting technique-----short cone technique-----follows the rule of isometry.
Periodontal bone levels will not be represented accurately by bisecting technique
Early occlusal carries are difficult to see on x-ray until the involvement of DEJ.
Buccal and lingual carries are difficult to see on x-ray best detected clinically
Buccal and lingual S carries----- circular radiolucent area.....later semilunar/elliptical
Root surface carries-----mostly in mandibular premolar and molar and cup/crater shaped radiolucency.
Alveolar crest...1.5-2mm below the CEJ.
Zygomatic #-----submento vertex and appears as handles of jug on view.
Maxillary sinus-----periapical, OPG, occlusal view, Caldwell, lateral head and Waters view
Mandibular #-----best view is Waters view
Bilateral condylar #-----Townes projection
Townes projection-----condylar, condylar neck and rami
OPG-----loss of fine detail.
Serial cephalometric may be used to assess direction of bone growth.
Bite wing radiograph-----proximal carries and progression of periodontal disease.
Bite wing radiograph no-----0 in primary 1 in mixed 2 after 2nd molar eruption and 3 less commonly.
Bite wing radiograph-----angle +8-10* and alveolar bone resorption best seen on B.wing
Largest intraoral film 4 and standard is 2
In children limited no of radiographs and thyroid shield
Widening of periodontal ligament at apex-----furcation involvement
Maxillary 1st molar furcation involvement-----mostly from mesial side
Narrow pocket shows-----root fracture or pathology of pulpal origin
EPT-----1-79 shows vital and 80 or over shows necrotic
In crack tooth syndrome crack propagate mesiodistally and in vertical root fracture it progresses buccolingually....
Crack tooth syndrome diagnostic test....dyes, tactile examination, tooth slots and transillumination
LAP= tetra + metro GAP= penicillin Chronic periodontitis= doxycycline+ SRP

With age chroma increases

PDL-----thinner in middle of the root and wider in alveolar crest region

Foramen and fossa-----radiolucent and lines radiopaque

unilocular radiolucencies at different sites

Apex of non-vital teeth → periapical granuloma, periapical cyst

- Apex of vital teeth → immature cementoma
- Crown of impacted teeth → dentigerous cyst
- Overlying mandibular canal → neurofibroma, neurilemmona
- Inferior to mandibular canal in 2nd molar area → Stafne cyst
- Focal or noncontiguous multiple → myeloma, LCH, metastasis

alpha, beta, cathode, proton and neutron are example of non-particulate radiations

electromagnetic radiations-----gamma rays, light rays, radio waves, x-rays,cosmic rays

quality of x-ray beam half value layer and quality of photon----KVP

greater the HVL-----greater will be intensity-----greater quality

collimation-----restrict the shape and size of the beam

filtration-----filter the longer wave length beam, increase penetrability, and reduce the exposure to the patient

filtered beam is lower intensity and higher quality

for carries detection-----high contrast and low scale

PID-----larger-----sharpness increases

Faster film-----grain size increases-----decreases sharpness

Magnification increases sharpness decreases

Radiosensitivity is directly related to reproductive ability and inversely to differentiation

Residual biological damage that remains in tissues is cumulative

Radiation induced thyroid cancer-----somatic

Biological dose equivalent dose

Highly oxygenated or high temperature-----more chances of radiation damage

Satisfactory intraoral radiograph-----100-600mR

Total filtration -----2.5

x-ray collimated no more than 2.75

maximum permissible dose/week-----0.1rem

scattered radiation-----higher KVP and close ended PID.

To estimate the exposure-----either we use TLDS or badges. Mostly TLDS can be reused and while badges single use

Developer and fixer should be change monthly and replinsh daily

Filtration reduce the contrast and inc the density of the film

Medi lateral subcondylar #-----PA view

Posterior mandibular area-----to determine the extent-----lateral oblique veiv

Walls of the orbit-----radiograph-----cald well

Invertet curve of spee-----patient chin too high

Exgreated curve of spee-----too low

Lateral view for 1.where excessive growth is occurring 2.if the growth has occur since last radiograph 3. After surgery 4. Needle breakage 5.caluli or any pathology

Perforation in TMJ_-----arthrography and to know abt soft and hard tissue relation-----MRI

On OPG-----incisor looks small-----patient is biting too farwards

Bite wing radiograph-----crestal bone, calculus, margin of restoration and interproximal decay

Mandibular foramen does not appear on peri apical x-ray

Reverse film-----lead foil comes in front-----light film results

Over angulation-----crown cut off and foreshortening

Palatal torus-----horse shoe shaped maxillary connector(least rigid)

Simplest and most commonly used mandibular major connector----lingual bar

Interproximal spaces and embrasure spaces more-----lingual bar

Chromium cobalt alloy are more rigid as compare to gold or palladium

Chromium cobalt alloy-----higher rigidity, less flexibility, stiffness high, density less, specific gravity less

Causes of fracture alloy of CO-CH-----cold working, shrinkage porosity, low percentage elongation, excessive carbon

Shrinkage in Co-Ch-----2.3%

To prevent the horizontal movement of the clasp-----encircle the tooth half or 180*

Ring clasp-----avoid where carries rate is high and esthetically objection

RPI more advantageous on carries prone individual

dental anomalies in different developmental stages of tooth

Initiation -anodontia or supernumerary teeth.

Cap stage- proliferation - dens-in-dente, gemination, fusion, and tubercles.

Bell stage -Morphodifferentiation and histodifferentiation - dentinogenesis imperfecta, amelogenesis imperfecta, and macrodontia / microdontia.

Apposition stage -enamel dysplasia, concrescence, and enamel pearls.

Infrabulge retainer should not be placed in tissue undercuts

Wrought wire -----elongation percentage of more than 6%.

Most important property in clasp is elongation.

Gold clasp has half the retention of chromium cobalt clasp while engaging ideal undercuts

Co-Cr-----prop limit less-----grain size larger—more chances of fracture

Mechanical properties of wrought wire are superior to those of cast structure. 25% (T.strength, hardness, strength, toughness, flexibility, adjustment and ductility)

Rest-----mostly premolar and canine

Anti rotational device---rest/connector

Indirect retainer-----rest should be placed away from distal extension as possible

Yield strength is directly related with flexibility

Reciprocation can be achieved by-----plating, minor connector, guiding planes, contact areas of proximal teeth and reciprocal clasp arm

Proximal guiding-----1/3rd bucolingual width , 2/3rd of bucal and lingual cusp and vertically 2/3rd

Primary purpose for rest is vertical support for RPD

inciasal rest mostly mandibular canine and cingulum rest mostly---maxillary canine

Guiding planes-----most changes to bucal and proximal surface or premolar and molars

Retention-----against line of insertion(sticky foods, gravity, opening mouth) and produced by retentive arm of the clasp

Support-----in line of insertion(in gingival direction) produced by occlusal rest and bony ridge

Stability-----against horizontal force-----produced by all components of clasp except retentive arm

Denture problem during Smiling----excessive thickness in buccal area, opening/yawing-----distobuccal, sore gums and aching muscle-----treat by increase interocclusal distance and reduce vertical dimension, tingling/numbness on lips or corners by excessive pressure on mental foramen

Objectives of altered cast technique-----maximum possible support from distal extension base of RPD and accurately relate soft tissue base of denture base to metal frame work

Stability is more important for patient comfort and oral health

Plastic teeth bonds well to acrylic than the porcelain

In clasp=====flexibility =====length³/diameter³

Fibrous Dysplasia---->Children

*Paget's Disease----->Adults over 50

*Aneurysmal Bone Cyst---->Teenagers

*Cherubism----->Children

*Periapical Cemento osseous Dysplasia---->Middle aged black women

*Capillary Hemangioma---->1st week after Birth till 9 years old

*Cavernous Hemangioma---->Old Adults

Disto buccal----masseter, disto lingual-----sup: constr muscle

Proper border remolding-----stability and lack of displacement

Immediate denture should be relined 5months and 10months post extraction

Sup constrictor impinge-----sore throat

Reline is contraindicated -----decrease vertical dimension and over closure

Occlusal disharmony can be most accurately corrected in articulator after patient remounting procedure

Tongue biting-----post teeth lingually inclined

Vertical dimension of occlusion affects lip support as well

Labial surface of max incisor 8mm anterior to incisive papilla

For better aesthetics.....teeth set facial to ridge, seal, adequate bulk of maxillary facial flange

Placing max incisor too far superiorly and facially-----difficulty in F and V sound

Learning to chew satisfactory can take 6-8 weeks

Trouble some swallowing-----dec interocclusal distance, dec freeway space and inc vertical dimension

Overdenture-----main advantage prevent the resorption of alveolar and other are-----proprioception and retention

Posterior dental arch-----too narrow/high-----whistling sound

The sound instead of S-----palatal thickness or teeth palatally placed

T like D-----palatally and D like T----labially

Multilocular radiolucencies and sites

- Anterior to 1st & 2nd molar → • CGCG
- ABC
- SBC
- Brown tumour
- Posterior involving ramus →
- Ameloblastoma
- Pindborg tumour
- Odontogenic myxoma
- Cherubism
- No site predilection →
- Fibrous dysplasia
- Central haemangioma
- OKC of basal cell naevus syndrome

Advance age-----broader contact area in denture

Whistling sound-----too much horizontal over lap, vertical over lap is not enough and area palatal to incisor is improperly contoured

Loose hyperplastic tissue-----passive position impression

Receptors Sour protons blocking K⁺ channels. Sweet/UMAMI activation of T1R3 receptors

Whistle on S sound-----increases the palatal resin convex contour lingual to max incisor

Lisp on S sound-----reduce OVD and increases interocclusal distance

Max and mand canine and P.molar contact during sibilants-----reduce VD and increases interocclusal distance

Maxillary occlusal rim should be parallel to camper's line.

If during try in want to adjust C occlusion, best way is to take the new centric relation record and remount

Porosity in acrylic-----1. Insufficient pressure (at least 20-30Pa required) 2. Paking in plastic stage (sandy or sticky)

Morphologic changes associated with edentulous state-----deepening of nasolabial groove, loss of labiodental angle, dec in labial angle, narrowing of lips, prognathic profile, increase collumela-philtral angle

Fracture occurs in porcelain rather than porcelain metal interface

Meta=0.5mm porcelain 1-1.5mm tooth cutting 1.5-2mm

Most freq cause of porosity in porcelain is due to inadequate condensation pressure

Ortho silver solder and bridge work gold solder

Solder melts at 150f*

Flux-----dissolve the surface impurities, protect the surface from oxidation

Contraindication of fixed bridge work-----poor oral hygiene, high carries rate, unacceptable occlusion, bruxism, mobile teeth

FDP-----any prosthesis replacing more than 2 teeth should be high risk

Diverging multirouted curved and broad labiolingual roots preferred over fused single conical and rounded roots

Excessive bone resorption-----anterior fixed bridge is contraindicated best is RPD

Replacing max or mand canine abudment CI and LI

High carries rate, short clinical crown, minimal over jet contraindicated for 3/4th crown

Nickel and beryllium can cause allergy in female specially

Silver palladium-----silver 55-71 and palladium 25-27%

Palladium- silver-----mainly palladium and silver 40%

Porcelain adhere to metal by chemical bond-----covalent bond

The most common complaint of lab technician regarding PFM-----improper margin in impression

Butt joint-----shoulder----poorest type of finish line in metal restoration

Melting point Gold 950 and Co-Cr 1350

Metal coping-----maximize the strength of porcelain veneers, and fit of crown

Outer junction of porcelain and metal should be right angle

Copper causes greening effects in porcelain.

Functional cusp reduction 1.5 and non-functional 1mm and convergence 6-10*

Primary reason for 3/4th crown over full crown is tooth structure is spared

The path of insertion for partial veneers-----ant teeth parallel to incisal 1/2 to 2/3rd of labial surface and in posterior parallel to long axis of tooth

Pin modifies 3/4 crown----preserve labial and one proximal surface

Tooth reduction for PFM and all ceramic should be same 1.5-2mm

Gold preferred for restoration of occlusal surface in tooth grinding habit

Work/strain hardening-----heating at room tempratur-----inc strength, hardness, prop limit and dec ductility and resistance to corrosion

Quenching make the metal more malleable
 Annealing inc the ductility and strength
 Gold 1,2,3-----gypsum bonded and 4 phosphate
 Dowels-----silver palladium-----gypsum
 Wear facets excessive-----dishrmony b/w centric relation and occlusion
 Diagnostic cast-----alginate----poured with type 4 or 5 plaster
 Portion of the pontic approximate the ridge should be convex
 Saddle shaped-concave-difficult to clean
 Egg shaped/bullet shaped-----convex-easy to clean
 Excessive tissue contact in pontic one of the major reason of for failure of fixed bridge
 Glazed porecelin---polished gold---unglazed porecelin-----acrylic
 Flux contain-----borax, silica, sodium pyroborate and (fluoride in case chromium only)
 Strength of solder join depends upon height not width
 Antiflux---restrict the flow of solder mostly graphite pencil
 Sanitary----hygenic, no contact, un esthetic zone also conical in un esthetic zone
 Modified ridge lap-----esthetic zone, minimal contact
 Saddle+ovate-----concave and un hygienic
 In gold crown theoretically beveling with feathered edge and practically chamfer
 Chamfer mostly for-----gold, cast metal restoration and lingual margin of metal ceramic restoration
 Shoulder-----ceramic, porecelin
 Shoulder with bevel-----inlay, 3/4th crown and PFM
 PFM-----shoulder. Chamfer, bevel
 PFM extend to marginal ridge----shoulder and metal ceramic with metal collar-----shoulder with bevel or chamfer
 Ceramic or porcelain-----shoulder, 90*, 1mm
 Electro surgery-----Too low current causes tissue drag, and contraindications are-----delayed healing, insulin pump, thin attached gingiva, TENS, pacemaker
 Half close eyes can increase the sensitivity of retinal rods to better choose the value of the colour
 Blue fatigue accentuates yellow sensitivity
 7/8th crown-----both proximal surface and sito bucal surface of tooth, especially useful when distal surface has carries or decalcification, serve as excellent abudment for tooth, usually placed on maxillary molar bu can be placed on mandibular premolar and molar.
 Highly esthetics-----predominantly glass and high strength genrally of poly crystalline
 most radio opaque to least (gold - amalgam - znoE - enamel - dentinr - pdl space)
 Co-Cr has melting poin 2300-2600 has lower yield strength, lower density and specific gravity
 Nickel-----ductilty and percentage elongation
 Provisional restoration is cemented with temp bond
 Type 1 gypsum-----not used today
 Type 2-----ortho cast, type 3----RPD, opposing cast,diagnostic cast, also called yellow stone or micro stone, type 4 and 5 used for crown bridge and implants
 Dental plaster,,,,,,,,,accelerator-----gypsum, nacl, potassium sulfate and retarders are borate, citrate
 Dental plaster is Beta hemihydrate(more water) and Dental stone is Alpha hemi hydrate(less water)
 To reduce the porosity-----vibrator and 2nd method is 1st water in bowl and sift powder over it

Nodules of stone appears in occlusal pits of stone cast-----due to entrapment of air

All gypsum product are weaker in tensile strength than compressive strength

Open vessels 120-150c*-----POP and autoclave 150-160*-----dental stone

Exposure of stone to tap water causes-----erosion of stone

The best method to control the gelation time of alginate impression is to alter the temperature of water

Reactor in alginate is calcium sulfate

Polyether-----stiff, dimensionally stable up to 24 hours and when dry, more than 1 cast, demonstrate imbibition

Polyether is hydrophilic and condensation silicone is hydrophobic

Condensation silicone-----catalyst is tin octonate, hydrophobic, poor wetting, low stability, more flexible and more chances of distortion. We have to wait 20-30 min b/f pouring

271 bur to start cavity prep

difference between 330 and 170 carbide burs was asked: they both r pear shaped with only difference in head lengths

330-2mm while 170/171- 4mm

P.gingivalis is increased in downs syndrome kids right

In ZOE-----catalyst is ca chloride, mineral/vegetable oil-----masking the effect of eugenol, rosin speedy reaction

Dimensional stability of ZOE is most likely due to failure to use custom tray

Radiographic appearance of crouzen syndrome beaten copper skull

Confirmed crouzan frog like teachers bird like

Agar-----no custom tray required, special eqp needed, borax acts as strengthening agent, dimensionally unstable, 8% water and poured with stone only

Hydrophilic----agar and polyether hydrophobic condensation silicone and addition silicone

Alginate-----filler D.earth , retarder sodium phosphate,reactor calcium sulfate also poor accuracy and detain, tears easily, high perm deformation

Alginate—debris on tissues-----irregular voids in impression

Additional silicone----most accurate elastomers,catalyst is chlorplatinic acid and scavenger is platinum or pladium. Delay pouring up o 1 week,

More stiff is polyether and tear strength polysulfide, dimensionally stability additional silicone

Alginate----3mm of space present b/w oral tissues and impression-----more accurate

Agar -----technique sensitive and pt complains thermal shock

Both the undermixing and over mixing reduce the strength in alginate

Elastomers-----best tray is custom made, lesser material and uniform distribution

Alginate-----best tray is stock tray, more material more accuracy and reliability

Polysulfide-----high flexibility, good flow propert, high tear resistance also exothermic, also contain lead dioxide which contain brown discoloration. Messy-----bad odour test, stain cloths,

Condensation silicone----- alcohol, Additional silicone-----hydrogen gas, Polysulfide-----water

Highest deformation among all elastomers-----polysulfide

additional silicone can be poured up to weeks,poly ether several hours, polysulfide with in one hour, and agar alginate immediately

Exothermic reaction-----POP, Polysulfide and acrylic resin

Imbibition-----alginate and polyether

Acrylic-greater monomer-----excessive shrinkage normal ratio of L/P ratio 1:3

In Acrylic-----initiator is benzoyl peroxide, inhibitor hydroquinone, chemical activator p-toulidine

Polymerization range in acrylic 60-77c*

Maxillary sinus enlarge through out the life so tuberosity moves downward

Submucosal vestibuloplasty-----maxillary arch-----to increase the denture bearing area

TMJ----upper compartment gliding and in lower compartment its rotatory movement

Epinephrine in gingival sulcus-----vasoconstriction and shrinkage

Zinc chloride causes-----necrosis of epith and Ct-----delayed healing

Hamulus-----attachment pterygoid humulus-----lies b/w buccinator and superior constrictor muscle

Palatal tori-----thin mucosa can cause rocking of denture and delayed healing so cover with surgical stent and dressing, if all max teeth are removed its best to remove torus at the same time

Plaque index is ordinal

Loose hyperplastic tissues-----impression in passive position

Frenectomy----- z-plasty-----fibrous attachment to bone

Paget`s disease-----bone expansion-----denture remade

Epulis fissuratum caused by-----over extended denture, traumatic occlusion

Denture stomatitis is mostly caused by candidiasis and trauma

Remade new denture mostly in Paget`s disease(ostitis deformans) and acromegaly

In any debilitating disease-----construction of denture-----do not use porcelain teeth, narrow occlusal table, non-pressure impression technique, OHI, recall appointment 6months

Too much interocclusal distance-----muscular imbalance

VD at rest= VDO+ interocclusal distance

VDR always greater than VDO,

Protrusive record-----ant + inf condylar path

When the mandible protrude-----separation of post teeth—chirestens phenomena,, affected by incisal guidance ant and condylar guidance post

Anterior guidance in CD should be avoided to prevent dislodgment of denture base

When recording c.relation in dentate patients imprint should be confined to cuspal tips and should not perforate

Mandibular movements-----protrusion 9-10mm, laterally 10mm, retrusion 1mm and opening 50-60mm

Occlusion-----max 1st premolar occludes in Distal triangular fossa of 1st PM and same like 2nd molar

During mandibular movements lingual cusp of mandibular molar will not contact their maxillary antagonist.all other areas buccal and lingual cusp contact

Non working movements-----mesiolingual cusp escape through distobuccal groove

Lingual cusp of mandibular 1st premolar does not occlude with anything

Lateral excursive movm-----guidance through canine

If u r changing canine protected occlusion-----there are more chances of increase non working side interference

Horizontal forces are most destructive to periodontium

In centric occlusion cusp fossa relationship, on working side-----contact of opposing cusp and non working/balancing side----max lingual with mand buccal

Oblique ridge-----DB and D cusp

Inclination of condylar path-----steep mean cusp height will be longer, and shallow cusp height should be shorter

Anterior guidance-----increases-----cusp height increases

Empty mouth swallowing-----intercuspal position

Tooth contacts are of longer duration in chewing than swallowing

Group function or unilateral balanced occlusion.....same thing on one side all teeth are in contact and other side not in contact while in bilateral balanced occlusion on both sides there are contacts

Determinants of occlusion-----right and left TMJ, neuro muscular system and occlusal surface of teeth

Theoretical determinants needed for restoring a complete and functional surface-----vertical over lap of anterior teeth, articular eminence, working side condyle, position of tooth in the arch

Basic principle of occlusal adjustment -----maximum distribution of occlusal stress in centric relation,, force should be along the long axis, surface to surface contact it should be changed to point to surface contact, and once in centric occlusion never take it out.

DB cusp serve as escape way ML cusp

Bennett movement-----lateral shift of the mandible or immediate side shift

Bennett angle-----sagittal plane and path of non working condyle.

Balancing/non supporting/non centric/shearing cusp.....does not occlude or fit on fossa, unlock the cusp

Supporting/working/stamp/centric cusp

In posterior cross bite-----supporting and non supporting reverse.

Non supporting cusp do not contact just over lap

Balance occlusion-----in order to give stability to appliance (in PD)

Eccentric occlusion-----protrusive, right and left lateral contact –when jaws are not moving

Articulation-----relationship of teeth during movement in to away from position while teeth are in contact

The purpose of selective grinding is to remove all interference with out destroying cusp height

Interference in Centric just grind marginal ridge and fossa while in lateral just grind the non holding cusp

Occlusion of gold restoration checked with Shim stock

Multiple adjacent pontics on ant fixed bridge-reduced facial embossure to enhance the esthetics

Condylar guidance depends upon-----TMJ, muscle, ligaments, methods used for registration

When adjusting condylar guidance for protrusive relationship----- pin on articulator should be raised out

Least reproducible maxillomandibular record is protrusive

Porcelain-----low tensile and shear strength

Metal porcelain junction should be at right angle and occlusal surface covered with PFM should be 1.5mm away

Porcelain rust at 2000f*

Core material in all ceramic is usually high strength sintered ceramic

In, Sn, Fe, Cr, all contribute to metal oxidation for chemical bonding to porcelain

Basic shade in PFM is provided opaque

Value is most important in shade selection, hue should be selected 1st, and intensity under value, value cant be increased

Addition of yellow increase the chroma and particularly yellow shade

Two modification for hue-----pink purple in yellow result yellow red and yellow decreases the red content

Violet----reduce the value

Staining on porcelain-----reduce the value, increases metamerism and loss of fluorescence

Smooth porcelain appears larger

Human teeth fluoresce mainly blue white hues 400-450

Glazed porcelain is better than over glazed porcelain,,glazed porcelain non porous resist abrasionposses esthetic ability well tolerated by gingiva

Free gingival graft-----epithelial formation in 1 week and complete maturation in 10-16weeks

Free gingival graft receive its nutrient from Connective tissue, intra oral site is edentulous space or palate

Localized narrow recession-----free gingival graft and wide/deep recession -----lateral positioned flap(pedicle flap) or sub epithelial CT graft

Class 1,2 G recession good prognosis, 3 partial coverage 4 poor prognosis

Hemisection in mandibular molars and root amputation in maxillary 1st and 2nd molar, most perio disease max 1st and 2nd molar

Hemisection in furcation class 2 and 3

Ideal pontic is ovate. Sanitary and ovate are convex, and ridge lap and modified ridge lap-----concave

Surgically created edge of flap must be uniformly thin usually 2mm thick

Gingivectomy-----incision should be placed apical to pocket depth

ANUG-----gingivoplasty

Internal bevel incision-----remove the pocket lining, conserve uninvolved outer surface of gingiva, produce sharp thin flap margin for adaptation to bone tooth junction

Modified widman flap-----just instrumentation but does not reduce pocket depth, does not extend beyond the mucogingival junction,

Undisplaced(un repositioned) flap-----instrumentation + pocket wall removal,

Undisplaced and gingivectomy are to flap procedure to remove the pocket wall

Apically displaced-----access, remove the pocket wall and inc the width of attached gingiva

Most freq performed type of perio surgery is Undisplaced(un repositioned) flap

Lateral post flap/ pedicle flap-----inadequate zone of attached gingiva, isolated area of gingival recession and CI are donor site lack sufficient attached gingiva and fenestration and dehiscence

GTR-----non resorbable mem removed after 3-6 weks,

Primary reason for failure of free gingival graft is disruption of blood supply.

Inadequate zone of attached gingiva-----gingival graft. Coonective tissue graft, apically positioned flap, LP flap

G recession-----G &Ct graft, pedicle, sub epe ct graft, and GTR

Ideal thickness of free gingival graft is 1-1.5m

In free gingival graft there is necrotic slough while in positioned flap not bcz in positioned flap blood supply is maintained

Top layer is last to be vascularized in Free gingival graft

Double papillaf flap-----inturpted blood supply bcz of suture tension and indicated in tooth brush abrasion, hypersensitivity

Apically displaced flap-----full thickness, indication-----moderate to deep pocket, furcation involment, crown lengthening root plaining, access for surgery

Free gingival graft-----epethelium degenerates-----re epethelization from adjacent tissues and surviving basal cells of the graft

Palatal flaps can't be displaced bcz of absence of un attached gingiva

Horizontal incision contain-----3 incision-----internal bevel, crevicular incision, interdental

Internal bevel/reverse bevel/1st incision-----0.5-1mm in apicaly D F, 1-2mm in modified widman F, and not displaced...coronal to base of pocket

Vertical releasing incision should extend beyond

Ostectomy-----bone pecieces remains-----widow peaks-----P pocket

Early to moderate bone loss, moderate root trunk, bony defect 1,2 wall-----ostecetomy

Shallow to moderate bone loss-----osteoplasty

Horizontal bone loss is most common bone loss in perio

Bone grafting success directly related with-----no of bony wall defect and inversely with roor surface area

Root resorption is most common side effect of grafting

One wall bone defect-----hemi septum

Two walled-----crater, best corrected by recountoring and 3 walled----intra bony

Smokers-----red and orange bacteria, T forsythia, effects neutrophils and inc tissue destructive enzyme

Increase risk of perio disease in autoimunse disease,osteoporosis, smokeless tobacco, radiation therapy

Smokless tobacco-----leukoplakia, carcinoma, attachment loss and tooth loss

Radiotherapy-----attachment loss and tooth loss

IL1 and TNF 1----bone resorption and IL8 chemotactic factor

Primary cell producing prostaglandins in inflammation are fibroblast and macrophages

VITAMIN B def can cause gingivitis and in C def there is loose teeth , bleeding swollen gingiva

Decrease in no of P gingivitis, T forsythia, and T denticola associated with successful treatment of disease

For patients taking more than 325 mg of aspirin per day, aspirin may need to be discontinued 7 to 10 days before surgical therapy

LIPO POLYSACCHARIDES CAUSES-----bone resorption and inhibit osteogenesis and chemotaxis

Herpetic gingiva stomatitis is contagious when vesicles are present

Chronic periodontitis can be caused by EBV, CMV

LAP-----familial, incisor and molar, puberty, absence of local factors, AA

Viridans---gram + and alpha hemolytic

LAP-----aa and GAP----p gingivitis and depressed chemotaxis

Desquamative gingivitis-----perlephigus, perlephigoid, L planus, ch ulcerative stomatitis, linear Iga disease, dermatitis herpetiform, LE, EM

Desquamative gingivitis-----red atrophic, glazed gingiva, middle age women, spares the marginal gingiva, involve attached gingiva, needed biopsy, role of plaque is vague in DG

Hypo phosphatasia, tetralogy of fallot .CHD, eisenmengers syndrome inc period disease

Cup like resorptive area-----initial periodontitis

Most critical factor for periodontitis-----attachment loss and mobility

Furcation grades and prognosis----1 fair, 2 poor and 3 questionable

Most accurate in alveolar bone resorption-----bite wing

Ortho therapy-----plaque accumulation more P.melaninogenica, P.intermedia, A odontolyticus

Pregnancy-----P intermedia, g enlargement in 2nd or 3rd month,

04 stages of period disease....initial neutrophils, early lymphocytes, established plasma cells and advanced plasma cells is CT and neutrophils in junctional epithelium and gingival crevice

Bleeding during probing-----indicated crevicular epithelium is ulcerated

Periodontal-----recall visit----3 months, if plaque control is good than it would be 4-6months

Puberty-----capnocytophagia, P.intermedia,

Pick up/open tray impression is used mostly for divergent implants

External hex-----component of implant and seat in to abudment while in internal hex component of abudment and seat in to implant

Implants-----

Torque applied to screw is called pre load, open tray impression is mostly used,

Counter sinking-----flaring or enlarging the coronal end of osteotomy

Tapping-----creation of spiral groves on inside the osteotomy, which reduce the required torque

Macro structure-----design or geometry and Micro structure-----surface characteristic

Screw shaped implant-----added stability and tapered

Biological width in implant---3-4mm and in tooth 1-2mm

Anti rotational elements-----prevent the rotation of abudment and restoration but not implant, single unit restoration require anti rotational while multi unit not

Probing refrence point-----In tooth CEJ and in implant shoulder/permanent structure

Amount of bone loss 0.2mm/year

In implant lateral forces are well tolerated-----off axis loading

Most common cause of peri implantitis is poor hygiene and occlusal loading

Excessive heat----damage to bone cells-----prevent osteointegration

i/v bisphosphonate therapy-----absolute contraindication for implant therapy

implant limit oh heat 47c* for less than 1 min

non passive fit-----down and implant failure

if osteotomy is too large-----lack primary stability and osteo integration fails

implant failure cases-----pain , infection, parasthesia, peri implant radiolucency, mobility

success ratio 85% 1st 5 years and 80 % 10years

2 adjacent amplants-----absence of interdental papilla—black triangle disease

C T appearance around implant shows implant failure

1st bone to establish on implant is woven bone than lamellar bone

CHF patient on digitalis-----avoid epinephrine or limited dose to 0.036mg, avoid calry or erythromycin, avoid gag reflex and epinephrine cords, place in upright position/semi supine and avoid NSAIDs

Relative contraindications are ppl who have uncontrolled diabetes and smokers. **ABSOLUTE CONTRAINDICATIONS:** mental or physcho disorders, under age 16, ppl who are too critical, one cant please.

Bone fracture splinting adults 2-8 weeks and children 3-4 weeks, alveolar # or root # is 3-4 months

Tooth avulsion-----flexible, splint root fracture/bone fracture-----rigid splints

Veneers reduction.....incisal 0.7 middle 0.5 and gingival 0.3mm

Tetracycline, Benzodiazepine, and Barbiturates **AVOID AVOID AVOID** during pregnancy

Facial Max LI, Mandibular central and maxillary 2 premolar: **widest keratinized gingival**

Facial of Mand. C, Mandibular first premolar, and lingual surfaces adjacent to mand. Incisors and canines and MB of Max 1st

Molar and Mand. 3rd Molar: **narrowest keratinized gingival**

posterior maxilla-----D4-----highest failure rates

failure rates are higher in smokers,,although not a absolute contraindication

in normal teeth there are periodontal ligament so proprioception, while in implant no p ligaments and dec tactile sensation and with time tactile sense increases in implant called osteo perception'

anterior loop-----course of IAN anterior to mental foramen

1 stage implant-----non submerged/transgingival

Cross sectional view-----CBCT, CT, conventional linear tomography

Probing in implant is deeper as compare to normal teeth and usually we use plastic probe

Minimum implant length-----10mm and maximum 16mm

Primary stability is primary objective of surgical implant placement

Factors for abudment selection-----inter arch space, angulation, esthetics, soft tissue height

Morse taper-----abudment to implant connection-----prevent from rotation, and tight fit b/w metal components and reduce the bactr=erial contaminations

Inter arch space is limited-----cemented crown to abudment is least advantegous

Screw retained restoration needs less space as compare to cemented restoration.

In implant we can use safely-----powered tooth brush, flossing, manual tooth brush, end tufts tooth brush, plastic currete and probe

Implant recall visit for hygiene-----3 months

Plat form switching-----smaller diameter abudment with wider diameter implant-----advantage reduce bone remodeling and bone loss

Opsonin C3b, chemotactic factor c3a and c5a

Receptor-----mast cells C3a and C5a +IGg , Ige and dendric cells C3a neutrophils C3

NK cells kills viral infected and tumor cells

As the severity of inflammation increases plasma cells increases

Zinc oxide eugenol dressing----bacteriostatic agent is chlor thymol

Rotary polishing agent contra indication-----communicable disease, respiratory problems, newly erupted tooth, green stain, inc risk of carries,

A tissue-level implant should be used when ease for oral hygiene is desired to preserve crestal bone.

Major component of gingival CT is collagen fibers, and usually consist of collagen, elastic, and reticular fibers

Acute period abscess-----pain, mobility, tooth feels elevated and systemic involvement

Chronic-----a symptomatic, mobility, fistula tract, no sys involv

Periodontal abscess-----fusi form bacteria

Occlusal spints-----controlling recurrence of drug induced gingival enlargement

Occlusal adjustment should not be done until inflammation is resolved

Preliminary phase(emergency treatment)----- phase 1==carries control, ext of hopeless teeth, SRP, OHI, Night guard, splinting, re-examination,-----phase 4 mainatanace-----phase 2 or 3

Increase tooth mobility caused by-----pregnency, local or systemic factor, trauma, hypo/hyper function,o trauma, bruxism, and plaque induced mobility

Patients with periodontitis often have T lymphocytes sensitized to plaque bacteria

T lymphocytes-----contact dermatitis type 4 hyper:, cell mediated imunity and modulation of anti body mediated

Cementum *primary* is acellular, 1st formed, does not contain cells, sharpys fibers major portion, cervical half of the root. secondary cemetum is cellular, after reaches the oclusal portion,less calcified, S fibers occupy smaller portion

cementum deposition is more rapid at the apical portion

functions of cementum-----attachment of sharpys fibers, compensate, protects the root and reparative function

cementum repair occurs on vital as well as non vital teeth

CEJ-----60-65% over laps, 30% edge to edge and 5-10% fails to meet

Trauma from occlusion is bcz of alteration of oclusal forces-----priamry trauma from occlusion and reduce adaptive capacity-----sec trauma

Spilinting indication,,,,,,,,,mobility of teeth, drifting of teeth, prosthetics where multiple abudment are necessary

Black,green, brown, orange-----improper oral hygiene.

Silver amalgam and topical fluoride-----exogenous intrinsic

MC sign of occlusal trauma is tooth mobility

Abrasive consist of 20-40% dentifrices

Water irrigation device-----clean non-adherent plaque and debris from oral cavity more effectively than tooth brush and M wash

Oral irrigator are contraindicated in patients requiring antibiotic pre medication bcz of chances of bacteremia

Dentine 25 and cementum 35 times abrade faster than enamel. So more problems in root

Tooth wear occurs more on maxilla than mandible and on left side

Tooth paste-----pyrophosphate-----reduce the new supra gingival calculus formation

Super floss components-----stiff under appliances, spongy for bw wide spaces and regular for sub gingival plaque

Super floss uses-----implant patiens,wide spaces, embrasure,bridge, braces,isolated tooth

Most simplest and used-----scrub and perio patints-----sulcular and mostly recomnded----bass

Plaque removal at gingival level, stimulation of gingiva-----Bass technique

Brush should be changed after 3months

Side effects of chlorhexidine-----brown staining of teeth,transient impairment of test, low toxic activity in human

Chlorhexidine 12% alcohol and listrene 24%

Sub gingival doxycycline 10%FDA approved

LAP-----tetracycline, chronic period:-----SRP+SDD, metronidazole—anerobic+Aa, penicillin LAP+GAP

Cipro floxacin-----anti biotic against which all strains of AA are susceptible

Macrolides-appears to concentrate in gingival tissue

Width of attached gingiva-----b/w muco gingival junction and base of perio pocket

Width of attached gingiva is greater in anterior segment than posterior segment, and increases with age and supra erupted teeth

Circular fibers resist the rotational forces

Most numerous cells in PDL are fibroblast, mesenchymal origin,

Gingival ct sells----mast cells. Macrophages, adipose cells, esnophills, plasma cells and lymphocytes

Gingival innervation-----labial, buccal palatal nerves

Transeptal maintain the integrity of dental arch

Alveolar crest-extrusion, apical fibers does not occur in incompletely formed roots

Narrow gingival zone-----mand canine and 1st premolar facial surface and lingual surface of LI and canine,mesio bucal root of max 1st molar and some times 3rd molar

Attached gingiva width 2mm,

Vermillion border of lips-----karetinized

EARLY COLONIZERS of plaque-----actinomycis, streptococcus

Green complex-----ACE-----actinobacillus, capnocytophagia, E korodens

Orange-----PCF-----fusobacterium, camphylobacter, prevotella

Res-----TTP----- t forsythia, T denticola, P ginigivilis

In biofilm—bacteria communicate with each other via Quorm sensing

Gram +ve use sugae as energy source and saline as carbon source while mature plaque bacteria amino acids and peptides as energy source

Crystals structure-----mandibular ant region brushite and post region magnesium white lock, in subgingival calculus less brushite and more mag w lock, as we go deeper in the pocket sodium content increases

Bleeding on probing is associated with red complex

Osseous crater best treated with osseous re countouring

Degree of success of periodontal bone grafting is directly related with no of bone wall of the defect and inversely relataed with surface area of root against which graft is implanted

Three wall defect most commonly on mesial surface of mandibular and maxillary 2nd ,3rd molar

2 most critical para meters for prognosis of perio-----attachment loss and mobility

Pocket depth-----from marginal gingiva to base of perio pocket while attachment loss is from base of pocket to CEJ.

Type 2 furcation involvement-----GTR,

Furcation involvement of maxillary 2nd molar have poorest prognosis

Gingival hyperplasia-----phenytoin, mephenytoin, ethotoin, methusxinimide, valporic acid, succinimides

Cyclosporine induced G hyperplasia is more vascularized than phenytoin

Recession is measured from marginal gingiva to CEJ

Furcation involvement -----NBBERS probe

The correct probing force is 10-20mg so that depress the thumb 1-2mm

Recession= migration of free gingival margin apical to CEJ(CEJ-marginal gingiva)

Periodontal attachment loss=GR+P pocket(if recession we add it and if hyperplasia we subtract it)

Attached gingiva=distance from marginal gingiva to MJJ-pocket

Most common cause of gingival recession is abrasion or tooth injury

Clinical evaluation of soft tissue response to SRP should not be conducted earlier than 2 weeks

In RP ideal working stroke begins at the apical edge of junctional epithelium

Most difficulty in in performing thorough SRP in tri furcation of max molar

Mandibular incisors and max 1st premolar-----flutings

Local is always require for gingival curratage

Currete 11,12 distal and 13,14 mesial 4-r 4-l Columbia

Most effective instrument for sub gingival scaling and root planning is curette

Curette has working end on both side, and rounded toe

Edematous gingiva respond better to curettage than fibrotic gingiva

Ultrasonic instrument-----light touch, light pressure, constant motion parallel to tooth

Ultrasonic—20k -65k while sonic 2k-65k

Magnato restrictive-----elliptical shaped and pizo electric is linear shaped

Prophy contraindications-----respiratory illness, hemodylasis, hypertension, infectous disease

Ultra sonic instruments-----principle-----high freq sound wave

Schwartz Pizo retrivers-----removal of broken tips

Wire edge is produced when last stroke is made away from cutting edge.

Scaling and Rp on anterior teeth with deep pockets have short straight shank

Subgingival scaling 0*, Scaling and root planning 45-90* gingival curettage >90*

Modified pen grasp for perio instruments

Patient management

OHI----lack of sensitivity, so less useful

Caucasians have more chances of coronal carries as compare to non Caucasians

Prevalence of gingivitis highest during 2nd and 3rd decade after that remains constant

Incidence of oral and pharyngeal cancer increases with age alcohol tobacco and uncommon before the age of 40
 US 8000 deaths occurs per year as a result of oral and pharyngeal cancer
 Community water fluoridation effectiveness 20-40% while school water effectiveness is 20-30%
 School water fluoridation is 4.5times higher than community water fluoridation
 Topical fluoride-----varnish and gels
 Varnish----high fluoride conc in small amount of materials and effectiveness is 7-75%
 Varnish----adhesive, should maximize the fluoride contact with tooth
 Varnish indication-----adult pt with g recession and root carries, bed ridden patients, disabled child
 Fluoride supplementaion-----non fluoridated area, b/w 6months and 16years of age
 F suppl starts with drops and at the age of three replaced by F.tablets
 F supplementation-----tablets and rinses.
 Fluoride rinses-----6 years or older b/c in younger more chances of swallowing, so not recomnded in early child hood carries
 Fluoride rinses daily 0.05% or weekly with 0.2%
 Pit and fissure sealent-----provide physical barrier to impaction of substrate for bacteria
 Fluoride least effective on pit and fissure where sealent are mostly effective
 Office based fluoride----sealents, topical fluoride and fluoride supplements
 AFP----1.23%
 High conc fluoride like APF-----form calcium fluoride-----release slowly fluoride and reminralization and no need for prophylaxis before fluoride
 Dental carries control through diet is moderately successful
 Patients especially prone to carries-----dentifrices+ fluoride gels home use
 Office-----APF and home use Naf 1%, stannous fluoride 0.4%
 Normal distribution
 Skewed distribution-----if the mean is greater than median its +ve and if the mean is lower than median its -ve and if both are equal its normal distribution
 Range is difference in b/w highest and lowest. And not a stable indicator
 More chances of needle stick injury more chances of HBV-----HCV-----HIV
 PPO-----open panel -----can go to any dentist
 HMO-----closed panel-----specific dentist
 As part of the occlusal reduction, a wide bevel should be placed on the functional cusps of posterior teeth to provide structural durability in this critical area. Failure to place a functional cusp bevel can result in thin, weak areas in the restoration.
 Do not disinfect when u sterilize
 Bench mark organism for sterilization-----bacillus spores
 Biological monitors-----weekly done
 Dry heat sterilization for metal and glass objects only
 Heat sensitive instruments-----medical device-----48.9c* for 2-3 hours
 Bench mark organism for dis infectant-----Mycobactrium TB
 Spatters----large, visible, with in 3 feet, potential route for infection for dental health care worker
 Aerosol----5-50um, invisible, floating in air for hours, can cause rep infection but not HBV/HIV
 Blood borne----spatters.. respiratory disease-----mist, aerosol
 Noise control----85db protective measure 90db chances of damage increases and 95db mandatory protection
 In water line CFU should be less than 200
 COLOUR CODING:
 Blue identifies health hazard, yellow identifies reactivity of materials, red fire hazard and white required PPE
 In table of allowance payment may be full or might not be by insurance company, if not patient involved in balance billing
 Fee schudle-----payment in full bu insurance, patient will not pay any thing
 Reduced fees for service is related with PPO
 MEDICARE does not provide dental service except in emergency
 Medicare for older and disabled patients
 Medicaid-----adult, disabled, blind, provide dental survice in children no later than 3 years
 Behavior is determined, purpose ful, units of activity
 When reviewing oral hygiene-----pt repeat in the end what u said
Child can't be expected to learn behavior until he has matured to stage at which he is ready for learning
 Aggressive personality-----irritability, tanturums, violence in response to frustration

Manipulative attitude-----more demanding attitude
 Stress is most associated with response effect
 Behavior shaping is regarded as learning model
 Behavior modification is also known as behavior therapy.
 Systemic desensitization-----technique used for eliminating anxiety associate with phobias
 To reduce the anxiety work quickly
 50-80% dental fear occurs during child hood or adolescence
 Organism are blank slate 8 birth
 Autoclave-----protein denaturation, and heat under pressure
 Dry heat-----cogulation of protein
 Instruments must be dry-----b/ ster with dry heat or ethylene oxide bcz water will interfere will sterilization
 Chemical vapour sterilization-----132c* for 20-40min and 20Lb pressure
 Chemical vappour sterilizer will destroy the heat sensitive plastics
 Rapid heat-----191c* for 12min in wrapped while 6 min in un wrapped
 Glutaraldehydes -----10hour to kill spore
 Ammonium compound are cationic detergent-----in activated by anionic detergent
 Anionic surface active agent -----detergent, soaps-----reduce the surface tension
 Non anionic have no anti microbial activity
 Liquids are sterilized by -----filtration, 0.22um nitro cellulose
 Sodium hypochlorite-----1:100(500ppm) is acceptable, renew weakly
 Phenol-----too caustic----rarely used today
 Disinfectant-----water based is better than alcohol , pump spray is better than aerosol spray
 Chlorine--powerful oxidizing agent-----kills bacteria and virus by oxidizing free sulphhydryl group
 Ethylene oxide-----alkylating agent irreversibly inactivating DNA and proteins, in sealed chamber
 Antiseptic-----static while disinfectant-----cidal + static
 Soap is natural and detergent is synthetic, and surfactant is added to increase the wetablity
 Hand gloves-----most common type IV hypers reaction and less type I
 Allergy to latex gloves---alternative is vinyl/nitrile gloves
 Latex gloves-----type I hypersensitivity reaction-----similar to bee sting-----may be mild include skin only and may be severe which also include respiratory system.
 Mercury poisoning-----pneumonia, gingival discoloration ,renal tubular necrosis, contact dermatitis and lossend teeth
 Mercury 0.1/c³ NO 1000ppm
 OSHA regulate contaminated sharps only
 Medical record must be maintained for duration of employment+ 30years
 Regulated waste-----blood+ items contaminated with blood or pot infectious materials
 Bandages and feminine products are not included in regulated waste
 Saliva should be treated as infectous according to OSHA
 FDA is responsible for regulating hand piece and making recommendation for sterilization for them
 When handling chemical agent, sharps,,,,,, always use heavy duty utility/nitrile gloves
 Fluid resistant gowns-----large amount of fluid/saliva/POIM is suspected, OSHA bleives it depends upon concentration and type of exposure suspected
 Primary method to reduce the HCP exposure to blood borne pathogen from sharps is E control
 Mercury-contaning items should not be placed in sterilizer or in regulated medical waste
 Amalgam waste recycler-----accept extracted teeth
 P value----less than 0.5 mean null hypothesis rejected and statistical significant while p value above 0.5 mean bull hypothesis accepted and statistical insignificant
 Multiple regression-----linear relationship b/w dependent and independent variables
 DMFS-----universal acceptibility while Plaque index no universal acceptibility
 Plaque index shows thickness of plaque while OHI shows plaque relation to teeth
 Effectiveness of community water fluoridation is 20-40% and school water 20-30%
 Fluoride tablets-----topical and systemic effects
 EFFECTIVNESS-----Dental sealants 51-67% , tablets 30%, mouth rinses 25-28%
 Dentist are morally, ethically, legally obligated to report suspected cases
 Child abuse new born to 3 years of age

Child abuse inform-----state agency, police. Domestic violence 68% face involve
Incidence is rate while prevalence is proportion(%)
Epidemiology-----prevention of disease while public health organize community efforts
Vital index= birth/death

Good Samaritan law-----provides immunity for specified health practitioners

Nominal shows ethnicity

In autonomy-----informed consent should be obtained

Riboflavin deficiency-----cheilosis and glossitis

Cheese and peanuts decreases the effectiveness of sucrose

Strict vegetarian deficiency of calcium, iron and vit B12

Pharmacology

Metyrosine inhibits the tyrosine hydroxylase-----rate limiting step in the Epinephrine and NE synthesis

Alpha blockers side effects-----orthostatic hypotension. Dry mouth, nasal congestion and tachycardia

MAO inhibitor should not be used with indirectly acting sympathetic drug and opioids esp meperidine

Epinephrine should not be used with neuron depleting agent like reserpine

Caredilol and labetalol have non selective B blocker and Alpha 1 blocking activity

Orthostatic hypotension is caused by-----alpha blocker, direct vasodilator and centrally acting drugs like clonidine and methylodopa

MC alpha receptor Alpha 1 and Most common Beta receptor B2

Alpha receptor response are excitatory and Beta receptor on heart is exc and else where inhibitory

Dobutamine-----alpha 1 and B1 selective agonist

Non selective Beta blockers-----pheochromocytoma and Raynaud's phenomena

Long duration alpha blocker-----doxazosin used in hypertension

Intrinsic sympathomimetic activity-----acebutolol and pindolol

At higher doses beta selective loss its selectivity and also effects on B2 as well

MC side effect of B blocker is drowsiness

Acebutolol-----ventricular arrhythmias

Epinephrine increases the anxiety as it has CNS stimulatory action

Sympathetic stimulation-----dilatation of pupil-----mydriasis

Parasympathetic-----constriction of pupil-----miosis

Most abundant product of lidocaine is 4-hydroxyliclidine

Bupivacaine and etidocaine longer duration of action, bupivacaine is more for sensory nerves than etidocaine

Opioids increases the toxicity of Local anesthetics

Allergic reaction caused by ester LA manifestation-----nasal labial swelling, mucosal swelling, itching

Intermediate acting LA-----prilocaine, mupivacaine, lidocaine,

Long acting LA-----etidocaine and bupivacaine

Chlor hydrate-----anxious child patient. 50mg/kg-1g/kg pro drug converted in to tri chlor ethanol and may displaced warfarin from binding site and dec the PT

PABA decreases the effectiveness of sulfonamides

Tetradoxin-----blowfish and saxitoxin-----algae =====both these agent have LA property

EMLA---2.5%---mixture of prilocaine and lidocaine-----increase solubility, increase penetrability and systemic absorption

Cocaine-----vasoconstrictor, physical dependence, abuse, inhibit the reuptake of sympathomimetic amines-----can cause euphoria and hypertension

Fluoride dose-----age while LA dose-----Weight

Lidocaine interaction-----B blocker and cimetidine reduces the clearance and inc the duration while phenobarbital and phenytoin inc the clearance of LA

Articaine-----7mg/kg

NO have minimal depressant effect on CVS and no muscle relaxant property

NO interact with Vitamin B12 synthesis via methionine synthases-----dev Vit B12 formation

High doses of NO can cause-----infertility, spontaneous abortion, neurologic and kidney damage, bone marrow suppression

NO is not analgesic, respiratory depressant, no LA property

Halothane -----causes hepatitis, weak muscle relaxant, problem with epinephrine while des,iso,savflurane does not causes problems as with halothane

Ketamine-----dissociative anesthesia----- block NMDA, problem hallucinations and treated with diazepam

Mepevacaine contain least amount of sodium meta bisulfate, bcz mepevacaine contain less epinephrine and also same reason used where less vasoconstrictor is needed

Alpha adrenergic blockers after LA-----50% reduction in time for normal sensation to occurs

Anti histamine stimulate and depress the CNS

cimetidine have anti androgenic effects, inhibit P450 and increases the activity of warfarin and carbamazepine

1st generation anti histamine-----reduces the motion sickness and also sedative

2nd generation anti histamine-----longer half life, doesnot cross BBB , no sedation, chances od cardiac arrhythmias

Cephalosporin active against gram +ve and -ve bacteria

Pseudomonas aruginosa-----fourth generation ceph

Alternative to mafloquine for malaria prophylaxis-----doxycycline

Macrolides are bacteriostatic

Erythromycin metabolize in liver and excreted in bile

Post antibiotic effect-----aminoglycosides

Bacteriostatic-----macrolides, clindamycin, sulfonamides

Bactriocidal-----aminoglycosides, penicillin, cephalosporin, floroquinolones

Sulfonamides are not used for treatment of oral infection-----bcz low degree of effectiveness against oral pathogen

Blood dyscrasias rarely caused by sulfonamides but they are fatal if they occurs

Serious staph, streptococcal infection-----vancomycin I/V

Red men syndrome is caused by Vancomycin

Grey baby syndrome-----2-9 days a/f the chloramphenicol

Cloromphenicol-----non dose related causes aplastic anemia and pancytopenia while dose related causes anemia, leukopenia, thrombocytopenia

Nitazoxanide----interfere with electron transfer reaction in protozoa

Sleeping sickness-----Eflornithine

Ethambutal is only effective against mycobacterium

Lysine tablets and docosanol cream in her labilis

Troche-----clotrimazole I/V form---amhotericin B

Amphotericin B-----kidney toxicity

Oral candidiasis-----nystatin. Oropharangeal.C-----clotrimazole and fluconazole. Esophageal.C-keto

Probenecid increase the concentration of penicillin

Always choose bacteriocidal and narrow spectrum antibiotics

Extended spectrum penicillin-----amoxacillin, ampicillin broadest spectrum-----piperacillin and ticarcillin

Amoxicillin inhibit renal secretion of methotrexate

Penicillin directly excreted with out metabolism

Naficillin, oxa, diclo, cloxa are excreted by biliry mean-----so no adjustment in kidney disease

Bacitracin causes neprotoxicity

Vir family in HIV-----non nucleoside reverse trancriptase inhibitor

Alternative to penicillin in ANUG-----tetracycline

Fanconi syndrome-----tetracycline, gentamycin, azathioprine, cidofivir (TAGC)

Tetracycline are not the drug of choice for gram staphylococcus and streptococcus

GIT upset is most common side effect of erythromycin so taken with food

Neuraminidase inhibitor-----oseltamivir, zanamivir-----inhibit the influenza neuraminidase

Acyclovior-----inhibit viral DNA synthesis

Amantadine and rimantadine-----prevent uncoating-----influnza A and B. amantadine also in parkinsons disease

Tetracycline contraindicated up to 8 years of age'

Asprin contraindicated in pregnancy esp in 3rd trimester'

Acetaminophen-----mild to moderate pain, hepatotoxic, weak inhibitor of prostaglandins

NSAIDs inhibit the anti hypertensive effects of ACE inhibitor, B blocker and diuretics

Acetaminophen-----greater than 7.5gm-----hepatotoxicity

Antidote for acetaminophen is N-acetyl cysteine

Patient taking methraxate or probenecid-----acitaminophen is preff as compare to asprin

Muscaranic receptor-----Gq, phospholipase C, and Ca

Parasympathetic-----meosis and sympathetic mydriasis

Anti cholinergic drugs have no intrinsic activity of their own

Anticholinergic uses-----parkinsons diseases, motion sickness, post operative bladder syndrome, travelers diarrhea

Anti parkinsonism-----benztropine and trihexyphenidyl

Ganglionic blocker-----mecamylamine

Depolarizing NM blocker-----S choline

Mecamylamine is used clinically for hypertensive crisis, malignant hypertension, bloodless field surgery

Non depolarizing competitive NM blocker-----antidote is neostigmine and pyridostigmine

Succinylcholine causes muscarinic response

The stimulation of skeletal muscle by excess ACh causes paralysis of muscle

Indirect acting cholinergic drugs used for Alzheimer disease-----Donpezil, Tacrine, rivastigmine, galantamine

Long acting barbiturates excreted through liver

Daily dose of 80mg of aspirin is useful for platelet action

Cardiac arrhythmias most commonly with halothane

Edrophonium for the diagnosis of myasthenia gravis and treatment of MG -----pyridostigmine

Edrophonium----different b/w cholinergic crisis and MG

CI for anti cholinergic drugs-----tachycardia, BPH, narrow angle glaucoma, asthma

Ultrasonic tip to tooth surface should be at 10°

Corticosteroids-----short term effects-----mood changes, secondary infection, hyperglycemia, and long term osteoporosis, cataract, hypertension, myopathy, Adrenal insufficiency

Leukotriene inhibitors-----zileuton Leukotriene receptor antagonist-----montelukast

Compazine is antipsychotic

Steroids in-----LE, asthma, arthritis, TMJ pain and A stomatitis

CHF steroids CI

Amyl nitrate-----cyanide poisoning-----oxidize hemoglobin, euphoria and sexual stimulant

Nitroglycerine is venodilator only

Digitalis=====supraventricular tachycardia, cardiogenic shock, heart failure and CI are ventricular fibrillation, ventricular tachycardia

Drug interaction of digoxin

B blocker+digoxin=heart failure Digoxin+antibiotics=toxicity, Digoxin+antithyroid drugs= dose adjustment

Digoxin+diuretics=toxicity

ACE inhibitors can cause-----angioneurotic edema

ACE inhibit the breakdown of bradykinin-----potent vasodilator

Verapamil-----angina, hypertension, supraventricular tachycardia

Quinidine-----supraventricular tachycardia

Amiodarone-----pulmonary fibrosis, thyroid abnormalities, skin discoloration, peripheral neuropathy

Quinidine----supraventricular tachycardia, B blocker----ventricular rate, amiodarone-----vent+supraventricular arrhythmias, calcium channel blocker----supraventricular tachycardia starting from AV node

Procainamide-----atrial fibrillation, flutter, tachycardia, ventricular tachycardia

Patient taking statin drug avoid erythromycin as this may increase the protein breakdown kidney failure

Prolonged QT interval-----erythromycin, clarithromycin while erythromycin not

Erythromycin TOARSE de pointes

Exemestane, letrozole-----aromatase inhibitor-----breast cancer

Carmustine, lomustine, streptozocin-----brain cancer

Busulfan-CML and chlorambucil-----CLL

mechloretamine -----hodgkins disease and lymphoma

Darbepoetin alpha-----erythropoiesis

Pegfilgrastim-----activation of neutrophils

Sargramostim-----myeloid reconstruction after autogenous BM transplantation

Methotrexate, 5-fluorouracil and doxorubicin-----mucositis

Anti metabolite mostly in S phase

Thiazide diuretics causes-----hyperurecemia, hypercalcemia

Loop diuretics-----hyperurecemia, tinnitus, hearing loss,

Most important side effect of potassium sparing diuretics is hyperkalemia

Potassium sparing diuretics-----collecting duct, thiazide-----distal tubules and loop D-----ascending limb

Functioning B cells are require methylglucosaminides and sulfonyleurea to work

Sulfonylurea and metaglinidines increases the insulin secretion
Heparin neutralize thromboplastin and also blocks new thromb generation
R Arthritis drugs-----Etanercept, Infliximab, adalimumab
Antifungal drugs----azoles drugs are P450 inhibitor
Avoid trizolam in patient taking antifungal drugs
1 grain=65gm and 1 ounce =30g or 30l
Drugs used in glaucoma-----pilocarpine, latanoprost, betaoxol, bimatoprost
Antacid neutralize the acid by chemical reaction
Clopidogrol has same mechanism of action as aspirin but it doesnot causes peptic ulcer like aspirin
Bisphosphonate-----non healing ulcer or exposed jaw bone, side effects ODN jaw, Git symptoms, esophagus erosion
Renin inhibitor-----aliskiran
Ethanol and alcohol inhibit aldehyde dehydrogenase
Most potent antacid is aluminum hydroxide and anta acid having most neutralizing property is calcium/sodium bicarbonate
Ethyl alcohol-----depress CNS, vaso dilataion in Skin, ADH production decreases, excitatory neuron inhibited and inhibitory stimulated

Growth hormone is administered S/C or I/M 3 times per week

a list of drug interactions:

- 1) Erythromycin / with penicillin- antagonism
tetracycline - penicillin - cancel each other
- 2) Sulfanamides and trimethoprim - synergism(both interfere with folic acid mechanism)
- 3) Seldane - erythromycin- cardiac arrhythmias
- 4) Broad spectrum antibiotics with coumarin anticoagulants -increased coagulation action becuase of reduction in vit k sources
- 5)penicillin G with Probenacid - decreases renal excretion of penicillin G
- 6) tetracycline with antacids - effectiveness of tetracyclines reduced
- 7)Ampicillin with oral contraceptives - decrease effectiveness of oral contraceptives(rapid excretion steroids from body)
- 8)erythromycin with digoxin- inhibits effectiveness of drug
- 9)NSAID - lithium, methotrexate- decrease elimination of lithium and metho(more side effects)
- 10)NSAID- diuretics -reduced action of diuretics
- 11) NSAID- warfarin _increased bleeding
- 12) NSAID with alcohol- bleeding ulcers
- 13) NSAID- antihypertensives - increased hypertension(antagonises)
- 14)NSAID- cyclosporine- negates the effect of cyclosporine on kidney function
- 15)Opioids- barbiturates - depress respiration by rendering respiratory center less sensitive to CO2
- 16)ciproflocacin inhibits methadone
- 17) rifampicin increases methadone
- 18)opioid with BZP-resp depression
- 19) opioids (meperidine)with Central nervous system (CNS) depressants, antihistamines, tranquilizers, , seizure med., muscle relaxants, sedatives, TCA,
- 20)opiates and alcohol enhances the sedative effect of both substances, increasing the risk of death from overdose
- 21) opioid with naloxane- cancel each other
- 22)epinephrine -histamine - antagonism- effect exactly opposite to histamine
- 23)epinephrine- nitroglycerin -physiologic antagonism
- 23) acetaminophen and codiene- synergism
- 24)protamine-heparin- agonist antagonist
- 25)meperidine dont go with MAO inhibitors
- 26)erythromycin shouldnt be given with theophylline
- 27)lidocaine with betablocker-reduced blood flow to liver-decreased clearance of drug
- 28)lidocaine-cimetidine-inhibits micrsomal enzymes-decreased lidocaine clearance

Molar Area:

- 1)Eruption Cyst
- 2)Odontogenic Keratocyst
- 3)Odontogenic Myxoma
- 4)Traumatic Bone Cyst
- 5)Ameloblastoma
- 6)Cementoblastoma
- 7)Chronic Osteomyelitis
- 8)Complex Odontoma

*Premolar Area:

Pure RATA

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Difference between Enamel and Dentin

	<i>Enamel</i>	<i>Dentin</i>
Color	Whitish blue or white gray	Yellowish white or slightly darker than enamel
Sound	Sharp, high pitched sound on moving fine explorer tip	Dull or low pitched sound on moving fine explorer tip
Hardness	Hardest structure of the tooth	Softer than enamel
Reflectance	More shiny surface and reflective to light than dentin	Dull and reflects less light than enamel

Difference between Primary, Secondary and Reparative/Tertiary Dentin

	<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>
Definition	Dentin formed before root completion	Formed after root completion	Formed as a response to any external stimuli such as dental caries, attrition and trauma
Type of cells	Usually formed by primary odontoblasts	Formed by primary odontoblasts	Secondary odontoblasts or undifferentiated mesenchymal cells of pulps
Location	Found in all areas of dentin	It is not uniform, mainly present over roof and floor of pulp chamber	Localized to only area of external stimulus
Orientation of tubules	Regular	Irregular	Atubular
Rate of formation	Rapid	Slow	Rapid between 1.5 and 3.5 $\mu\text{m}/\text{day}$ depending on the stimuli
Permeability	More	Less	Least

DRUG INTERACTIONS

syndromeeeeeeeeeeeee

http://books.google.com.pk/books?id=lksG08hp1sgC&pg=PA679&lpg=PA679&dq=crouzon+syndrome+mnemonics&source=bl&ots=3y3DVtzCjs&sig=xEr82oFjDhPTawhrhzN1MdusRwQ&hl=en&sa=X&ei=KXHXUuyFLIOZyAPay4GYBQ&redir_esc=y#v=twopage&q=crouzon%20syndrome%20mnemonics&f=false

lets start with the Maxillary cusp.

1) Buccal cusps:-

Maxillary buccal cusps occlude only with grooves and embrassures of class counterpart or class counterpart and tooth distal to it.

A) The cusp of the canine lies in the facial embrassure b/w the mandi canine and pre-molar.

It is unique in that it is the only tooth which overlaps teeth in both the anterior and posterior segment.

How ever the TIP does not articulate with any tooth.

B) Ist Pre-molar:-

It occludes with the facial embrassure b/w mandi pre-molars.

C) IInd Pre-molar:-

It occludes with facial embrassure b/w 2nd PM and 1st molar.

D) Ist Molar:-

MB Cusp: MB groove of mandi 1st molar

DB Cusp: B groove of mandi 1st molar

Oblique Ridge: groove b/w DB and Distal cusp of mandi 1st Molar

E) IInd Molar:

MB Cusp: MB groove of mandi 2nd molar

DB Cusp: Embrassure b/w mandi 2nd and 3rd molar.

-----*-----

Lets now go on to the Lingual cusps:

These occlude with Fossae and Marginal Ridges of class counterpart or class counterpart and tooth distal to it.

A) Ist Pre-Molar: istal triangular fossa of mandi 1st PM.

B) IInd Pre-Molar: istal triangular fossa of mandi 2nd PM

C) Ist Molar:

-ML Cusp: Central Fossa of mandi 1st molar

-DL Cusp: istal Marginal Ridge of 1st molar and Mesial Marginal Ridge of 2nd molar

D) IInd Molar:

-ML Cusp: Central Fossa of mandi 2nd molar

-DL Cuspistal Marginal Ridge of 2nd molar and Mesial Marginal Ridge of 3rd molar

Imp Notes:

The TIPS do not occlude with any tooth.

Also it is the triangular ridge of the maxillary cusps which are resting in the sucli and embrassures of the mandibular teeth.....there are a couple of questions about this point too...

this time we will be having a closer look at the mandibular cusps.....and where they leave their mark...

A)Buccal cusps:

They occlude into central/mesial/distal fossae of their class counterpart or onto the marginal ridges of their counterpart and the tooth mesial to it.

lets go tooth wise...

1)Ist Pre-molar: Mesial triangular fossa of maxillary 1st PM and Distal Marginal Ridge of Canine

2)IInd Pre-molar: Mesial triangular fossa of 2nd PM

3)Ist Molar:

-MB cusp: Mesial marginal ridge of 1st molar and Distal marginal ridge of 2nd PM

-DB cusp: Central fossa of 1st molar

-Distal cusp: Distal triangular fossa of 1st molar

4)IInd Molar:

-MB cusp: MMR of 2nd molar and DMR of 1st molar

-DB cusp: Central fossa of 2nd molar

B)Lingual Cusps:

They occlude into the lingual embrassures between their class counterpart and tooth mesial to it or into the lingual grooves of their counterparts

1)Ist Pre-molar: The lingual cusp does NOT occlude with any opposing tooth.

2)IInd Pre-molar: Lingual embrassure btween Maxillary Pre-molars

3)Ist Molar:

-ML cusp: Lingual embrassure between 2nd PM and 1st molar

-DL cusp: Lingual groove of 1st molar

4)IInd molar:

-ML cusp: Lingual embrassur between 1st and 2nd molar

-DL cusp: Lingual groove of 2nd molar

Periodontology 2000; 29:104-121.

How administered

The PSR index divides the mouth into 6 segments (sextants) and the greatest probe depth in each sextant of the mouth is determined and recorded. Probing is accomplished by a plastic PSR probe that has a .5mm diameter ball tip and a color-coded band extending 3.5mm to 5.5 mm from the tip. The probe is gently inserted into the gingival sulcus until resistance is met and then explored by “walking” around the tooth or implant. At least six areas in each tooth or implant should be examined: mesiofacial, midfacial, distofacial, and the corresponding lingual/palatal areas.

Scale scoring and normative values

Codes range from 0-4 where code 0 indicates that there is probing depth that is less than 3.5mm in the deepest crevice in the sextant with no calculus or defective margins or bleeding on probing detected. Code 1 only differs from code 0 in that bleeding is present. Code 2 only differs from Code 0 in that there is supra- or subgingival calculus and/or defected margins present. Code 3 indicates that the probing depth is greater than 3.5mm but less than 5.5mm. Code 4 indicates that the probing depth is greater than 5.5mm.

Sextants with fewer than two teeth are scored with an X and are not considered in the overall evaluation. Each code can have an asterick * placed depending on clinical abnormalities including but not limited to furcation invasion, mobility, mucogingival problems, or recession extending to the colored area of the probe (3.5 mm or grater).

As to findings on 6,723 patients utilizing this index, Salkin, Cuder and Rush (1993) had only 4.4% of their patients who