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Paper Maxillofacial Surgery

Examination: Final

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Q. 1 Enumerate The Instrument Use during extraction process.

Ans:

Instruments used in extraction:

Following are the instruments used during extraction which are given below:

- *Dental forceps (maxillary and mandibular)*
- *BDR forceps (maxillary and mandibular)*

- *Elevators (straight, periosteal elevator, chisel, cryer's, cross bars, war-wick James elevator)*
- *Surgical blades*
- *Local Anesthesia syringe, needles cartridge.*
- *Sterile gauze.*
- *Surgical aspirating tip.*
- *Cotton pliers.*
- *Mouth mirror.*
- *Hemostats.*
- *Surgical curette.*

Q2) Define Local anesthesia? Also write in Detail about six constituents of Local anesthesia...

Ans) Local Anesthesia!

Local anesthesia is the temporary loss of sensation or pain in one part of the body produced by a topically applied or injected agent without depressing the level of consciousness. 1. Dental anesthetics fall into two groups: esters (procaine, benzocaine) and amides (lidocaine, mepivacaine, prilocaine and articaine)

also Share on Pinterest Local anesthesia provides pain relief in dental surgery and other outpatient procedures. Local anesthesia is used when: surgery is minor and does not require general or regional anesthesia. the procedure can be done quickly and the patient does not need to stay

Local anesthesia use For

Acute pain

Acute pain may occur due to trauma, surgery, infection, disruption of blood circulation, or many other conditions in which tissue injury occurs. In a medical setting, pain alleviation is desired when its warning function is no longer needed. Besides improving patient comfort, pain therapy can also reduce harmful physiological consequences of untreated pain.

Some typical uses of conduction anesthesia for acute pain are:

Labor pain (epidural anesthesia, pudendal nerve blocks)

Postoperative pain (peripheral nerve blocks, epidural anesthesia)

Trauma (peripheral nerve blocks, intravenous regional anesthesia, epidural anesthesia)

Chronic pain

Chronic pain is a complex and often serious condition that requires diagnosis and treatment by an expert in pain medicine. LAs can be applied repeatedly or continuously for prolonged periods to relieve chronic pain, usually in combination with medication such as opioids, NSAIDs, and anticonvulsants. Though it can be easily performed, repeated local anaesthetic blocks in chronic pain conditions are not recommended as there is no evidence of long-term benefits.

Surgery

Virtually every part of the body can be anesthetized using conduction anesthesia. However, only a limited number of techniques are in common clinical use. Sometimes, conduction anesthesia is

combined with general anesthesia or sedation for the patient's comfort and ease of surgery. However, many anaesthetists, surgeons, patients and nurses believe that it is safer to perform major surgeries under local anesthesia than general anesthesia.[3] Typical operations performed under conduction anesthesia include:

(write in Detail about six constituent of Local anesthesia)

Local anesthetics have a great efficacy and safety in dental practice. Their use is so routine, and adverse effects are very uncommon. The main compositions of this anesthesia are lignocaine (anesthetic), adrenaline s(vasoconstrictor), methyl paraben (agent), sodium metabisulphate (fungicide) and water.

Six Constituent of Local anesthesia

1) Local Anesthetiv agent

2) Vasoconstrictor

3) Reducing agent

4) Preservative

5) Fungicide

6) Vehicle

Local anesthetic Agent :

Lignocane Hydrochloride 2% is most commenly use anesthetic agent.

Uses:

Conduction Block

Vasoconstrictor:

Adrenaline is used for vasoconstrictor in local anesthesia.

Uses!!

Delays Absorption of LA from the site

provide blood less field.

prolong the action

Reducing the system toxicity.

Reducing agent:

Sodium meta bisulphite is used to prevent

the oxidation Of vasoconstrictor

Preservatives:

Methylparaben

it increase the shelf life of anesthesia

solution act as a bacteriostatic agent.

Fungicide:

Thymol is used as fungicide.

Vehicle:

Modified Ringer Solution or distilled water is used as vehicle

its produces the volume of solution and act as diluent .

Q3) Enumerate All extraction complications? Write about soft tissue injuries in detail?

Ans) Tooth Extraction Risks

Post-general

Soft Tissues Injuries in the Mouth



☞ Bite

☞ Dry

☞ Nerve Injury. ...

☞ Maxillary Sinus Exposure

Surgical Risks. Tooth extraction is associated with several post-surgical effects such as pain, inflammation, bruising, bleeding and infection. ...

☞ Improper Teeth Alignment. ...

Collapse. ...

☞ Delayed Healing Due to Medications. ...

☞ Osteoradionecrosis. ...

Socket (Osteitis) ...

(Soft Tissue Injuries in Detail)

The injuries of the soft tissues are usually cuts, punctures, lacerations, and bruises caused by even the simplest injury to the face. And since they bleed easily, a soft tissue injury usually causes panic. At True Dental Care Preston, we want to ease your mind and repair any damage as soon as possible.

Soft injuries tissue:

- Tear of a mucosal flap
- Puncture wounds
- Stretch or abrasion

Tear of mucosal flap:

The most common soft tissue injury during oral surgery

Causes:

- Inadequately sized envelop flap.
- Forcibly retraction beyond the ability of the tissue to stretch (to gain needed surgical access).
- Tearing.

Prevention:

- Creating adequately sized flap to prevent excess tension on the flap
- Using controlled amounts of retraction force on the flap
- Creating releasing incisions when indicated

Management:

- Carefully repositioned once the surgery is completed
- Excise the edges of torn flap to create a smooth flap margin

Puncture wound

Causes:

- Using uncontrolled force during using the
- Instruments such as straight elevator or a periosteal elevator which may slip from the surgical

field and puncture or tear into adjacent soft tissues

Prevention:

- Use of controlled force
- Using finger rests
- Support from the opposite hand if slippage is anticipated

Treatment:

- Primary aim is prevention of infections and allowing healing to occur
- If wound bleeds excessively hemostasis left open unsutured healing by Secondary intention

Stretch or abrasion

Common sites:

- Lips ,corners of the mouth

Causes:

- Abrasion or burns from the rotating shank of the bur rubbing on soft tissue
- Metal retractor coming into contact with the soft tissues

Prevention:

- Surgeon should focus on the cutting end of bur as well as the location of shank and shaft in relation to the soft tissues

Treatment:

- Clean the area with regular oral rinsing
- Usually such wounds heal in 4 -7 days with out scarring
- If such abrasion or burn does develop on skin advised to keep it moist with antibiotic ointment (5 -10 days)

Q4) Define an Impacted tooth?What are causes of Tooth Impaction?

Ans)

An impacted tooth is one that fails to erupt into the dental arch within the expected developmental window. Because impacted teeth do not erupt, they are retained throughout the individual's lifetime unless extracted or exposed surgically. Teeth may become impacted because of adjacent teeth, dense overlying bone, excessive soft tissue or a genetic abnormality. Most often, the cause of impaction is inadequate arch length and space in which to erupt. That is the total length of the alveolar arch is smaller than the tooth arch (the combined mesiodistal width of each tooth). The wisdom teeth (third molars) are frequently impacted because they are the last teeth to erupt in the oral cavity. Mandibular third molars are more commonly impacted than their maxillary counterparts.

Some dentists believe that impacted teeth should be removed[1] except, in certain cases, canine teeth: canines may just remain buried and give no further problems, thus not requiring surgical intervention. However, removal of asymptomatic, pathology-free, impacted teeth isn't a medical consensus: watchful monitoring may be a more prudent and cost-effective strategy[and make the future placement of a dental implant through such impacted tooth a feasible approach.

(Classification)

Classifications enable the oral surgeon to determine the difficulty in removal of the impacted tooth.[9] The primary factor determining the difficulty is accessibility, which is determined by adjacent teeth or other structures that impair access or delivery pathway. The majority of classification schemes are based on analysis on a radiograph. The most frequently considered factors are discussed below

Very rare case of vertical premolar impaction: the permanent second premolar on the lower right side of the mouth is impacted, inverted and pierces the mandibular bone. Notice that the deciduous second molar is also present, which is uncommon because the patient is a 37-year-old man.

Most commonly used classification system with respect to treatment planning. Depending on the angulation the tooth might be classified as:

Mesioangular

Horizontal

Vertical

Distoangular

Palatal

Buccal

Lingual.



Impacted Wisdom Tooth

Impacted wisdom teeth is a disorder where the third molars (wisdom teeth) are prevented from erupting into the mouth. This can be caused by a physical barrier, such as other teeth, or when the tooth is angled away from a vertical position. Completely unerupted wisdom teeth usually result in no symptoms, although they can sometimes develop cysts or neoplasms. Partially erupted wisdom teeth can develop cavities or pericoronitis. Removal of impacted wisdom teeth is advised in the case of certain pathologies, such as nonrestorable caries or cysts.

part b(Causes of Impacted tooth)

Causes of Impacted wisdom tooth

Wisdom teeth become impacted when there is not enough room in the jaws to allow for all of the teeth to erupt into the mouth. Because the wisdom teeth are the last to erupt, due to insufficient room in the jaws to accommodate more teeth, the wisdom teeth become stuck in the jaws, i.e., impacted. There is a genetic predisposition to tooth impaction. Genetics plays an important, albeit unpredictable role in dictating jaw and tooth size and tooth eruption potential of the teeth. Some also believe that there is an evolutionary decrease in jaw size due to softer modern diets that are more refined and less coarse than our ancestors'.

Wisdom teeth usually emerge sometime between the ages of 17 and 25. Some people have wisdom teeth that emerge without any problems and line up with the other teeth behind the second molars. In many cases, however, the mouth is too crowded for third molars to develop normally. These crowded third molars become trapped (impacted).

An impacted wisdom tooth may partially emerge so that some of the crown is visible (partially impacted), or it may never break through the gums (fully impacted). Whether partially or fully impacted, the tooth may:

Grow at an angle toward the next tooth (second molar)

Grow at an angle toward the back of the mouth

Grow at a right angle to the other teeth, as if the wisdom tooth is "lying down" within the jawbone

Grow straight up or down like other teeth but stay trapped within the jawbone

Causes of impacted tooth:

- Irregularity in the position and pressure of an adjacent tooth.
- Density of the overlying or surrounding bone.
- Chronic inflammation with resultant fibrosis of the overlying mucosa.
- Lack of space due to under developed jaws.
- Unduly over retention of the deciduous teeth.
- Inflammatory changes in the bone due to diseases in children, like, Chicken pox, Parotitis.
- Heredity.
- Malnutrition.
- Endocrine dysfunctions.
- Diseases of jaw and surrounding tissue

Complications

Damage to other teeth. If the wisdom tooth pushes against the second molar, it may damage the second molar or increase the risk of infection in that area. This pressure can also cause problems with crowding of the other teeth or require orthodontic treatment to straighten other teeth.

Cysts. The wisdom tooth develops in a sac within the jawbone. The sac can fill with fluid, forming a cyst that can damage the jawbone, teeth and nerves. Rarely, a tumor — usually noncancerous (benign) — develops. This complication may require removal of tissue and bone.

Decay. Partially impacted wisdom teeth appear to be at higher risk of tooth decay (caries) than other teeth. This probably occurs because wisdom teeth are harder to clean and because food and bacteria get easily trapped between the gum and a partially erupted tooth.

Gum disease. The difficulty cleaning impacted, partially erupted wisdom teeth increases the risk of developing a painful, inflammatory gum condition called pericoronitis

Prevention

You can't keep an impaction from occurring, but keeping regular six-month dental appointments for cleaning and checkups enables your dentist to monitor the growth and emergence of your wisdom teeth. Regularly updated dental X-rays may indicate impacted wisdom teeth before any symptoms develop

Q5) Write in Detail about 3 techniques Of administration of Local anesthesia.

Ans Following are the three techniques of administration of local Anesthesia which are given below

Technique

- Local infiltration.
- Field block.

- Nerve block.

1. Local infiltration:

- Small terminal nerve endings in the area of surgery are flooded with LA solution rendering them

insensitive to pain. In this method, insertion is made through the same area in which the solution

has been deposited.

- This technique is usually successful for treatment of mandibular deciduous canines, incisors and

even in molars.

2. Field block:

- Here the LA solution is deposited in proximity to the large terminal nerve branches so that the area to be anesthetized is circumscribed to prevent the central passage of afferent impulse

- Maxillary injections administered above the apex of the

- Tooth can be termed field blocks.

3. Nerve block:

- Method of securing local analgesia in which suitable local anesthetic solution is deposited within

close proximity to the main nerve trunk, thus preventing nerve impulses from travelling centrally

beyond that point

Thank You man 😊

Ending paper.