THE ANESTHESIA AND ANESTHETICS FOR PODIATRISTS

Twilight anesthesia is commonly known as I.V. sedation and calls for an easy awakening and speedy recovery time by the patient. It is used by podiatrists to control pain by using medicines that reversibly block nerve conduction near the site of administration, therefore, generating a loss of sensation at the area administered.

Close monitoring by an anesthesiologist helps keep the patient comfortable during a medical procedure, along with other drugs to help relax the body. It can also help control breathing, vital signs, heart rate and rhythm, when needed.

There are four levels of sedation by anesthesia which include the following:

**Level One:**
**Minimal sedation (anxiolysis)** – a drug induced state in which the patient responds normally to verbal commands. Although the cognition and coordination of the patient are impaired, cardiovascular and ventilatory functions remain unaffected.

**Level Two:**
**Moderate sedation/analgesia ("conscious sedation")** – a drug induced depression of consciousness during which the patient responds purposefully to verbal commands, either alone or accompanied with light physical stimulation. Breathing tubes are not required for this type of anesthesia. This is Twilight Anesthesia.

**Level Three:**
**Deep sedation/analgesia** – a drug-induced depression of consciousness during which the patient cannot be easily aroused; but respond purposefully following repeated or painful stimulation! Ventilatory functions may be impaired, breathing tubes are required. Cardiovascular functions are usually sustained.

**Level Four:**
**Anesthesia** – consists of a combination of general anesthesia and spinal or major regional anesthesia. It does not include local anesthesia. Ventilatory function is often impaired and cardiovascular functions may be impaired.
QUESTIONS AND ANSWERS:

Q-1: General and Deep Podiatric Surgical anesthesia is considered what level:

1. One
2. Two
3. Three
4. Four

ANS: Three - Level 3

Q-2: The patient responds normally to verbal commands in what type of anesthesia?

1. One
2. Two
3. Three
4. Four

ANS: One - Level 1

Q-3: What general inhalation agent is both flammable and toxic to the liver?

1. Marcaine
2. Halothane
3. Lidocaine
4. Hepatocaine

ANS: Two - Halothane

Q-4: How [where] are amide anesthetics metabolized?

1. Brain
2. Kidneys
3. Liver
4. Blood-Brain barrier
5. Bladder and Intestines

ANS: Three - Liver

Q-5: Where is the ester anesthetics hydrolyzed?

1. Blood
2. Urine
3. Feces
4. Plasma
5. Serum

ANS: Four – Allergenic plasma
Q-6: What drug is not indicated with halothane use?
1. Lidocaine
2. Epinephrine
3. Methyl paraban
4. Eucerine
5. Insulin
6. Ethyl paraban

ANS: Two – Epinephrine

Q-7: What sensations are lost with a local nerve block - in order of anesthesia?

ANS: Pain [first], temperature, touch and motor function [last].

Q-8: The “chills and shakes” of general anesthesia may be relieved by what drug?
1. Sterol
2. Luminol
3. Demerol
4. Xylol
5. Merinol
6. Haldol

ANS: Three – Demerol

Q-9: What stage or level of anesthesia is required to elevate a thigh or extremity tourniquet?
1. One
2. Two
3. Three
4. Four
5. Five

ANS: Two – Level 2

Q-10: What is a typical adverse reaction to the drug succinylcholine?
1. Stretching and hyperkalemia
2. Flaccidity and hypokalemia
3. Fasciculations and hyperkalemia
4. Flaccidity, hypokalemia and fasciculations
5. Sudden death syndrome

ANS: Three - Fasciculations and hyperkalemia
Q-11: Which drug is not an ester based local anesthetic?

1. Etidocaine
2. Procaine
3. Hexylcaine
4. Chloroprocaine
5. Tetracaine

ANS: One - Etidocaine

Q-12: What is not an extremity tourniquet complication?

1. Circulatory Dehydration
2. Necrosis
3. Pain
4. Paralysis
5. Circulatory volume overload

ANS: One - Circulatory volume dehydration

Q-13: What is the best drug treatment for so-called “convulsions”?

1. Thorazine
2. Valium
3. Benzene
4. Librium
5. Meclazine

ANS: Two - Valium

Q-14: What is the EKG pattern of a low serum calcium level?

1. Narrow QRS complex
2. Wide QRS complex
3. Narrow QS band
4. Wide QS band
5. Muti-focal T waves

ANS: Two - Wide QRS complex

Q-15: Which drug is not an amid based local anesthetic?

1. Lidocaine
2. Procaine
3. Bupivacaine
4. Mepivacaine

ANS: Two - Procaine
Q-16: What is the major effect of the drug ketamine?

1. Amnesia
2. Anesthesia
3. Anabolism
4. Amino hydration
5. Amino dehydration
6. Anesthesia and anabolism

ANS: One – Retrograde amnesia

Q-17: What is often one of the first signs of malignant hyperthermia?

1. Hypothermia
2. Hyperthermia
3. Bradycardia
4. Tachycardia
5. Asystole
6. Bisystole

ANS: Four - Tachycardia

Q-18: What is the toxic dose of 1% lidocaine with Epi?

1. 100 mgs.
2. 200 mgs.
3. 300 mgs.
4. 400 mgs.
5. 500 mgs.
6. 600 mgs
7. 700 mgs.

ANS: 5 - 500 mgs. [50 ml.]

Q-19: What is the toxic dose of .25% bupivacaine with Epi?

1. 125 mgs.
2. 225 mgs.
3. 325 mgs.
4. 450 mgs.
5. 550 mgs.
6. 675 mgs.
7. 750 mgs.

ANS: 2 - 225 mgs. [90 ml.]

Q-20: Which local anesthetic is longer acting – Marcaine, plain saline, sterile H2O, D5W, or Lidocaine?

ANS: Marcaine
CANCERS AND RELATED LOWER EXTREMITY TUMORS

According to the National Cancer Institute, cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymph systems.

Cancer is not just one disease but many diseases. There are more than 100 different types of cancer. Most cancers are named for the organ or type of cell in which they start - for example, cancer that begins in the colon is called colon cancer; cancer that begins in basal cells of the skin is called basal cell carcinoma.

Cancer types can be grouped into broader categories. The main categories of cancer include:

- **Carcinoma** - cancer that begins in the skin or in tissues that line or cover internal organs.
- **Sarcoma** - cancer that begins in bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissue.
- **Leukemia** - cancer that starts in blood-forming tissue such as the bone marrow and causes large numbers of abnormal blood cells to be produced and enter the blood.
- **Lymphoma and myeloma** - cancers that begin in the cells of the immune system.
- **Central nervous system cancers** - cancers that begin in the tissues of the brain and spinal cord.

QUESTIONS AND ANSWERS:

**Q-1:** A bone tumor matrix consisting of so-called “ground glass” would be of what type?

**ANS:** Fibrous dysplasia

**Q-2:** Name some characteristics of an intense periosteal malignant bone tumor reaction?

**ANS:** Onion skin, hair-on-end, sun-burst effect and Codman’s triangle.

**Q-3:** A so-called “onion skin” appearance is typical of what type of bone tumor?

**ANS:** Ewing’s sarcoma
Q-4: Another name for multiple enchondromatosis is what disease?

1. Minear’s disease
2. Dust pan enchonroma
3. Painter’s syndorme
4. Ollier’s disease
5. Maffuci’s disease
6. Carpenter’s disease
7. Plumber’s syndrome

ANS: 4 - Ollier’s disease

Q-5: Another name for multiple enchondromatosis WITH hemagiomatosis is what disease?

1. Minear’s disease
2. Dust pan enchonroma
3. Painter’s syndorme
4. Ollier’s disease
5. Maffuci’s disease
6. Carpenter’s disease

ANS: 5 - Maffuci’s disease

Q-6: What bone tumor might be noted on an X-ray by a “chicken-wire” calcification?

1. Chondroblastoma
2. Hydroblastoma
3. Philiblastoma
4. Bilirubinblastoma
5. Microblastoma
6. Macroblastoma
7. Medioblastoma

ANS: 1 - Chondroblastoma

Q-7: Which bone tumor might NOT have a “soap-bubble” matrix?

1. Aneurysmal bone cyst
2. Giant cell tumor
3. Chondromyxoid fibroma
4. Myxoid chondro-fibroma

ANS: 4 - Myxoid chondro-fibroma
Q-8: What is a “Popoff” tumor?

1. Proud flesh
2. Mulluscum
3. Abscess
4. Fabrication
5. IGTN
6. Acne pimple
7. Glomus
8. HIV
9. STD
10. Nevus

ANS: 7 – Glomus tumor

Q-9: What is the most common form of cancer in man and woman?

ANS: Basal cell carcinoma

Q-10: Name two types of classic melanoma invasion and thickness pathology classifications?

1. Adams
2. Barrows
3. Clarks
4. Breslow
5. Davids
6. Clemons
7. Mohr’s microscopy
8. Thin slice dermatome

ANS: 3 and 4: Breslow’s and Clark’s

Q-11: What is mycosis fungoides?

1. Cutaneous T-cell lymphoma
2. Cutaneous B-cell lymphoma
3. Deep T-cell lymphoma
4. Deep B-cell lymphoma
5. Cutaneous T and B-cell lymphoma
6. Deep T and B-cell lymphoma

ANS: 1- Cutaneous T-cell lymphoma
Q-12: A “rodent-ulcer” is associated with what condition?

1. Basal cell carcinoma
2. Squamous cell carcinoma
3. Stratified squamous cell carcinoma
4. Oat cell carcinoma
5. Lentigo carcinoma
6. Molluscom contagiosum

ANS: 1 - Basal cell carcinoma

Q-13: Where does a carcinoma most commonly migrate and metastasize?

1. Heart
2. Liver
3. Lungs
4. Kidneys
5. Stomach
6. Skin
7. Intestines
8. Eyes

ANS: 3 - Lungs

Q-14: Hearing impairment with knuckle-pads on the toes and fingers may indicate what condition?

1. Serum Bart syndrome
2. Plasma Pumphrey disease
3. Blood Bart condition
4. Urine Humphrey illness
5. Bart-Humphrey flu
6. Pumphrey-Bart syndrome

ANS: 6 - Pumphrey-Bart syndrome

Q-15: The name for a giant cell tumor in the joint space?

1. AVS
2. BVS
3. CVS
4. PVS
5. TVS
6. UVS
7. WVS
8. ZVS

ANS: 4 – PVS pigmented villonodular synovitis
Q-16: Fibrous dysplasia leading to a varus femur deformity is also known as what condition?

1. Shepherd’s crook  
2. Gamekeeper’s cock  
3. Goal tender’s ball  
4. Angel’s wings  
5. Devil’s horns  
6. Satan’s ring

ANS: 1 - Shepherd’s crook

Q-17: Non-Hodgkin’s lymphoma [NHL] is also known as what condition?

1. Reticular sarcoma of skin  
2. Reticular sarcoma of organs  
3. Reticular sarcoma of muscle  
4. Reticular sarcoma of kidney  
5. Reticular sarcoma of lungs  
6. Reticular sarcoma of bone

ANS: 6 - Reticular sarcoma of the bone

Q-18: A common malignant tumor of bone diaphysis?

1. Bowen’s sarcoma  
2. Squamous cell sarcoma  
3. Ewing’s sarcoma  
4. Lime disease  
5. Murray’s syndrome

ANS: 3 - Ewing’s sarcoma

Q-19: Hemangiomas may be first noted at what time?

1. Birth  
2. Childhood  
3. Puberty  
4. Adulthood  
5. Middle age  
6. Seniors  
7. Senility

ANS: 1 - Birth
Q-20: What is **not** a pattern of osseous bone tumor aggressive destruction?

1. Geographic pattern
2. Mouth-eaten
3. Permeative
4. Bubble-like

**ANS:** 4 – Bubble like