CNS-Physiology

Archive

Lecture 1

Somatic Pain and Thermal Sensation

CNS-Physiology Lecture 1

1. As per thermal sensations, one of the following is correct:

A .Are evoked by all changes in environmental temperatures.
B. Are evoked by stimulation of thermo- sensitive pain receptors.
C. Are involved in regulating metabolic activities.
D. Are transmitted by A beta sensory fibers.
E. Are transmitted by A alpha sensory fibers.

Answer: C. Are involved in regulating metabolic activities.

2. Intermittent claudication is:

A. Visceral pain.
B. Deep pain.
C. Cutaneous hyperalgesia.
D. Colicky pain.
E. Secondary hyperalgesia.

Answer: B. Deep pain.

3. As per hyperalgesia, one of the following is correct:

A. It happens normally.
B. Primary hyperalgesia is best explained by convergence- facilitation theory.
C. Primary hyperalgesia happens because of threshold changes.
D. Secondary hyperalgesia happens in the area of the inflamed skin.
E. It never happens in local axon reflex.

Answer: C. Primary hyperalgesia happens because of threshold changes.

4. Inhibition of pain signals by tactile stimulation of a skin surface involves:

A. Type A alpha fibers in peripheral nerves.
B. Type A beta fibers in peripheral nerves.
C. Type A delta fibers in peripheral nerves.
D. Type C fibers in peripheral nerves.
E. Autonomic sympathetic afferent fibers.

Answer: C. Type A delta fibers in peripheral nerves.

5. Reaction to pain includes all of the following except:

A. Increased HR.
B. Depression.
C. Withdrawal reflexes.
D. Stoppage of impulse discharge from nociceptors in chronic painful conditions.
E. In severe type of pain, parasympathetic activity is stimulated.

Answer: D. Stoppage of impulse discharge from nociceptors in chronic painful conditions.

CNS-Physiology Lecture 1

6. Primary cutaneous hyperalgesia:

A. Develops in the normal skin region around the area of flare.
B. Is an abnormal condition in the skin in which painful stimuli becomes more severe.
C. Is due to changes in threshold of pain receptors.
D. Is associated with throbbing type of pain.
E. Is accompanied with normal skin color.

Answer: C. Is due to changes in threshold of pain receptors.

7. Pain sensation is:

A. A pleasant sensation.
B. Transmitted by Pacinian corpuscles.
C. Due to over stimulation of other sensations.
D. A pre- potent stimulus.
E. Of a much lower threshold of excitation compared to other sensations.

Answer: D. A pre- potent stimulus.

8. About hyperalgesia:

A. The pain threshold is lowered in secondary hyperalgesia.
B. The pain threshold is increased in secondary hyperalgesia.
C. The pain threshold is lowered in primary hyperalgesia.
D. The pain threshold is increased in secondary hyperalgesia.
E. It is not related to pain threshold changes.

Answer: C. The pain threshold is lowered in primary hyperalgesia.

9. One of the following is NOT a reaction following pain:

A. Withdrawal reflex.
B. Depression.
C. Depression of transmission of pain along sensory pain fibers.
D. Miosis of pupils.
E. Increased HR.

Answer: C. Depression of transmission of pain along sensory pain fibers.

CNS-Physiology Lecture 1

10. The sensation of temperature is signaled mainly by warm and cold receptors whose sensory fibers travel in association with the sensory fibers carrying pain signals. One of the following statements best characterizes the transmission of signals from warm receptors:

A. Warm receptors are well- characterized histologically.

B. Signals from warm receptors are mainly transmitted along slow- conducting type C sensory fibers.

C. Warm receptors are located well below the surface of the skin in the subcutaneous connective tissue.

D. There are 3 to 10 times more warm receptors than cold receptors in most areas of the body.

E. Warm receptors relay in thalamus then to somatic sensory cortex.

Answer: B. Signals from warm receptors are mainly transmitted along slow- conducting type C sensory fibers.