FORENSIC AND TOXICOLOGY



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Forensic

1. A victim with CO 12% is found in a closed factory with negative autopsy except this lesion:



A) True or false: cause of death is CO poisoning False

B) What's the name of this position?

Pugilistic attitude

C) What is the cause of this position? It's due to muscle dehydration and coagulation of proteins in the muscle

D) How to differentiate between heat hematoma and traumatic epidural hematoma? Carboxyhemoglobin level (high in heat hematoma)

E) True or false: this sign is definitely antemortem False

F What is the cause of death? Neurogenic shock

G) What is the manner of death? Accidental

H) Is this lesion fatal? No

I) Mention 2 sure antemortem signs? Presence of vital reaction and soot in the lower respiratory tract

2. Case of suicidal strangulation:
A) True or false: there would be nail abrasions and contusions
False

B) True or false: hyoid bone is commonly fractured False

C) True or false: petechial hemorrhage is rare in this case False



A) What is the type of object that used? Sharp object

B) If depth was more than width: A stab wound

C) What's the duration of incapacity and what's the prognosis? 7-10 days, good prognosis

D) True or false: would be worse if penetrating True

E) what is the direction of the wound? Right to left (tailing is on the left)

4.



A) What is the direction of beveling? Inward (internal beveling)

B) What is the sign seen in the picture? Muzzle imprint

C) what is the distance? Contact

D) True or false: there is multiple eatery points False

E) True or false: there is no skull fracture False



A) What is the type of this wound?

Joule burn

B) What is the most common cause of death in this case?

Cardiac dysarrhythmia (V fib) / paralysis of respiratory muscles

C) What would you find in the autopsy?

Negative autopsy, not specific findings (Zenker's degeneration, petechial hemorrhage, focal necrosis with hemorrhage in the heart, congested lungs, Brain edema)

6.



A) What is the name of this postmortem change? Hypostasis (livor mortis)

B) True or false: hypostasis gives a hint about the cause of death True

C) True or false: hypostasis gives a hint about the toxin we will find in the blood True

D) What is the name of the whitish areas? Contact pallor



A) What is the type of the wound in the circle? Stab wound

B) What's the direction of the wound the arrow points to? From the right side to the left side of the dead body From up to down the picture

C) What do you think the manner of death in this case? Homicidal

8.





A) What is the type of this wound? Patterned abrasion

B) What is the type of anoxia (toxic,stagnant, anoxic)? Stagnat anoxia

C) True or false: the shown hypostasis is typical for this case True

D) True or false: the postmortem interval is less than 24 hours True

E) True or false: this is a common homicidal case False

9. A picture of: (wound 1) laceration on chin with (wound 2) bruises near it and (wound 3) several small wounds on cheeks
A) What is the type of injury that caused these wounds?
Blunt injury

B) What is the type of wound 1? Laceration

C) What is the name of wound 2? Contusion

D) Are wounds 3 nail abrasions? Maybe yes

10.



A) What is the name of the sign in the left picture? And it's due to death by what? Pugilistic... Dry flame burns

B) True or false: this sign in the left picture is a definite antemortem sign? False

C) How to differentiate the cause of hematoma is is heat or trauma? Carboxyhemoglobin level

D) What are the wounds on the arms? Do they indicate a struggle? Heat splits... No

11.



A) What is the name of this sign? Livor mortis

B) What is the cause of (A) in the picture? Pressure (contact pallor)

C) Does this sign completely absent in RTA? If severe bleeding occurs then yes

D) Does the victim died in supine position? Yes



A) What do you see? Marbling

B) True or false: it needs at least 48 hours to appear True

C) True or false: first place to appear is on the left iliac fossa False

D) Name 2 other signs that are considered a definite signs of death? Mummification, rigor mortis, hypostasis

13.



A) What is the type of this wound? Contusion

B) What is the mechanism of injury? Extravasation of blood due to ruptured blood vessels

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Toxicology

1.A case of ethylene glycol automotive antifreeze: A) What is the cause? Ethylene glycol

B) What is the antidote? Fomepizol or ethanol

C) True or false: We should correct the hypercalcemia? False

D) True or false: In this case we can induce emesis with salt and water? False

2. A case of pesticide poisoning:A) What is the cause?Organophosphate

B)True or false: Give atropine immediately False

C) Mention other antidote Pralidoxine

D) True or false: Measure the blood level of choliesterase True

3. In giving an advise for sport doping, answer the following with true or false:A) Taking beta blockers for stress reliefFalse

B) Blood transfusion is allowed for sport players without real indication False

C) It is allowed to do an acidification of urine in extreme amphetamines intake False

D) It is allowed to take diuretics to lower the weight False

E) It is allowed to take morphine for pain after exercise False

4. A case of a child poisoned with ADHD drug (15 pills of amphetamine) answer the following with true or false: A) Measure the blood pressure True

B) Monitor for arrhythmia True

C) Naloxone is an antidote False

D) Alkalization of urine to induce elimination False

E) Use antipyretic to treat hyperthermia True

5. A case of diesel water pump poisoning:A) What is the antidote?O2

B) True or false: There will be an alkalization of the patient blood False

C) True or false: Remove the patient from the place True

D) If the patient found dead then what is the cause of death? Hypoxia

6. Anti freeze poisoning case: A) True or false: Give the patient charcoal False

B) Do blood for convulsions Ca++ level

C) Do urine test Analysis (ca++ oxalate maybe??)

D) Mention 2 antidotes Ethanol & fomepizol

E) What would happen if we give the patient disulfiram?

It leads to accumulation of formaldehyde & glycoaldehyde (toxicity symptoms)

7. A pesticide poisoning case: A) What is the causative agent?

Organophosphate

B)If atropine is given immediately what will happen?

It might induce ventricular dysrhythmia in hypoxia patients (give O2 first)

C) What will happen if we give physostigmine?

It will potentiate anticholinestrase activity which will increase organophosphate toxicity

D) This poisoning is due to accumulation of what substance?

Acetylcholine

E) Why we give pralidoxime in this case?

To reverse the phosphorylation of cholinestrase to amiliorate muscle weakness, fasciculations and alteration of consciousness

8. A young male took a white powder which resulted in hyperthermia and convulsions: A) What is the substance? Cocaine

B) What is the antidote? No definite role

C) What we could give the patient to control convulsions? Benzodiazepine

D) This poisoning case is due to accumulation of what substance? Dopamine

E) What substance we could measure to confirm the diagnosis? Benzoylecgonine in urin

