



Tanta University  
Faculty of Medicine

Forensic Medicine & Clinical Toxicology department  
MD of Forensic Medicine & Clinical Toxicology  
(Forensic medicine paper II)

Date :9-11-2021 200 marks  
Number of page:2

Time allowed :3 Hours

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**All questions must be answered:**

**I- Case scenario: (100 mark)**

A group of divers was seen in a trouble in the red sea. A coastguard helicopter, local coastguard were mobilized as part of a rescue operation. A deceased's unconscious body of a 50-year-old man was recovered from the surface of the water approximately 30 minutes after fellow divers reported him missing.

The deceased died on the way to a nearby hospital . Cardiopulmonary resuscitation was attempted but in vain .

The medicolegal expert has undergone a post mortem CT scan of the chest, abdomen and pelvis before postmortem examination. The deceased was an amateur diver. The diver profile downloaded from the dive computer showed the deceased ascended 29 meters in 20 seconds. The equipment was tested and no faults were identified.

1-Describe the medico legal approach in this case.

2 - What are the expected CT findings?

3-Write the death certificate of the deceased

**II-Give reason(s) (5 marks each)**

**1-Putrefaction occurs slowly in cases of heavy metal poisoning.**

**2-Rigor mortis occurs faster in thin persons than in muscular.**

**3-Floatation of dead drowned victims occurs rapidly in warm water than cold water**

II-Give an account on:

1-Medicolegal importance of eye examination? (14 mark)

2- Brain fingerprinting (14mark)

3-Helium suicide (14mark)

4-Concealed homicide (14mark)

5-Mass disasters (29 mark)

لجنة الامتحان  
الأستاذة الدكتورة د. إنبار الجلادى  
الأستاذة الدكتورة د. منى الكوهري  
الأستاذة الدكتورة د. نبيهة أحمد  
د. منى الجلادى  
د. نبيهة أحمد

Forensic Medicine & Clinical Toxicology department  
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(Forensic medicine paper 1)

Date :6-11-2021 250 marks  
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Answer the following questions

I-A dead body of a female aged 28 years was brought for postmortem examination. The police had registered a criminal case on the statement of brother of the deceased who was 32 years old. On Postmortem examination ; it was well built dead body of a female. The whole body was in rigor mortis, postmortem staining was fixed and present on the back except parts of contact flattening; Cyanosis was present on nails, lips and ear lobules. The injuries as observed on the dead body included:

- 1-Reddish brown abraded contusion, 4.5 X 2.5 C.M. was present on right side of neck just below the middle part of the right half of mandible.
- 2-Reddish .linear abrasion, 0.5 C.M. in length, oblique in direction, was present on left side of face, just above middle of the left half of mandible.
- 3 -Reddish abrasion, 6 X 1.5 C.M., was present on left side of neck in its upper half and horizontal in direction.
- 4 .Reddish contusion, 3 X 1.5 C.M., was present on left side of neck, 5 C.M. below and anterior to left angle of mandible and horizontally placed.
- 5 .Reddish contusion, 3.5 X 1.5 C.M., was present on left side of neck, in its lower part, 9 C.M. below left angle of mouth and horizontally placed.
- 6 .On dissection of the neck, tissues underlying the injuries were ecchymosed and showing blood infiltration.
- 7 .About 100 C.C. of grayish brown liquid contents were present in stomach with liquid chyme in the intestine.



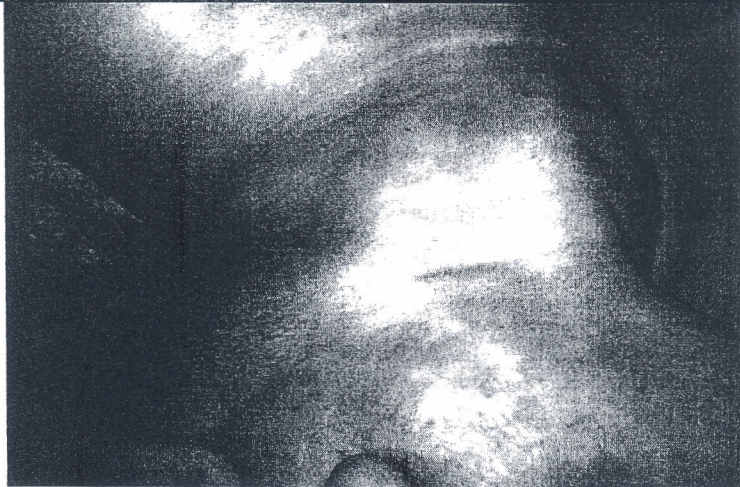
-Describe the medicolegal approach in this case as regard: (120 mark)

1-Identification of age of the victim and her suspected brother

2-Cause and manner of death

3-Exclusive investigations that should be done in this case

4-your opinion about the possible causes of rapid rigor in this case



## II-MCQ questions: (2 marks each)

1-Cephalic index is useful for the determination of which of the following?

- A. Age
- B. Sex
- C. Race
- D. Stature

2- Which of the following is false regarding testicular feminization?

- A. Testes present
- B. Female phenotype
- C. XY
- D. Uterus present

3-In autopsy of spinal cord which of the following approaches is applied?

- A. Anterior
- B. Posterior
- C. Lateral
- D. Anterolateral

4-In which of the following deaths postmortem lividity is unlikely to develop?

- A. Drowning in well
- B. Drowning in a fast flowing river
- C. Postmortem submersion
- D. Drowning in chlorinated swimming pool

5-Cavitation effect of firearm injuries is the most damaging mechanism, which one of the following organs is less affected by this cavitation?

- a- Limbs
- b- Lung
- c- Liver
- d- Kidney

6-Lesion of which of the following sites characterize diffuse neuronal axonal injury?

- A. Junction of gray and white matter
- B. White matter
- C. Basal ganglia
- D. Corpus callosum

7- Which of the following is the most common cause of death in thermal burns?

- A. Convulsion
- B. Aspiration pneumonia
- C. Hypovolemic shock
- D. Arrhythmias

8- Which of the following differentiate between incised wound and heat rupture favoring heat rupture?

- A. Margins well-defined
- B. Small and multiple wounds
- C. Nerves and vessels are visible in floor
- D. Seen only over scalp

9-café coronary is a term which describes which of the following?

- A) Coronary heart attack occurring in a café
- B) Choking by a bolus of food.
- C) Hemorrhage in the corona radiate
- D) Coronary embolism with café au lait
- E) Coronary thrombosis due to chest trauma

10- What is the type of manual asphyxia when it is accomplished by constricting the neck within the bend of an elbow or knee?

- A-Throttling
- B-Bandsola
- C-Garotting
- D-Mugging

11- How can visualization of gunpowder residue on blood stained clothes be facilitated?

- A. Ultraviolet rays
- B. Infrared rays
- C. Magnifying lens
- D. Paraffin test

12-Lichtenberg figures are seen in which of the following?

- A. Heat stroke
- B. Radiation injury
- C. Lightning
- D. Electrocution

13- What are sparrow's foot marks characteristics of?

- A. Vitriolage
- B. Windshield glass injury
- C. Lightning strike
- D. Stab injury

14-Which of the following statements is not correct regarding diatoms?

- A. Diatoms are aquatic unicellular plant
- B. Diatoms have an extracellular coat composed of magnesium
- C. Acid digestion technique is used to extract diatoms
- D. Presence of diatoms in the femoral bone marrow is an indication of antemortem inhalation of water



15-What is the type of firearm wound if burning, blackening, tattooing around the wound, which is cruciate along with cherry red colour of the surrounding tissues?

- A. Close shot entry
- B. Close contact exit
- C. Contact shot entry
- D. Distant shot entry

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16-When Post mortem lividity is dark in color?

- A. In CO poisoning.
- B. In death from cold
- C. In nitrite poisoning
- D. In death from hemorrhage

17-When Rigor mortis is absent?

- A- Cadaveric spasm
- B- Heat stiffness
- C- Cold stiffness
- D- Any of the above

18-A man shot his wife by non-choked sporting gun over her abdomen. During examination of the wound, the doctor found rat hole wound with nibbled margin surrounded by blackening & tattooing. What is the distance of firing in this case?

- A-Tight contact
- B-Less than 15 cm
- C-About 70-80 cm
- D-More than one meter

19-From which one of the following organs, caliber of a projectile can be determined?

- A-Abdominal wall
- B-Bone
- C-Skin
- D-Uterus

20-What is the scientific term of "actual tract of crush caused by passage of missiles"?

- A-Permanent cavitation
- B-Temporary cavitation
- C-Tumbling
- D-Ricocheting

21-A man shot his wife by automatic pistol at a far distance over her abdomen. Which of the following is the most characteristic feature for differentiation between inlet and exit in this case?

- A-High level of carboxy hemoglobin at inlet.
- B- Presence of fiber inside the inlet.
- C- Presence of punctate burn at inlet
- D- Presence of blackening at inlet

22-Which of the following is considered secondary brain injury?

- A. Cortical laceration
- B. Brain stem contusion
- C. Diffuse axonal injury
- D. Cerebral edema

23-Teardrop sign is seen in which of the following fractures?

- A. Medial wall of orbit
- B. Lateral wall of orbit
- C. Floor of orbit
- D. Roof of orbit

24- What does the patient show in fracture of posterior cranial fossa ?

- A. Deafness
- B. Facial paralysis
- C. Ocular paralysis
- D. Visceral paralysis

25-In a case of rape, which one of the following tests is used for detection of vaginal cells?

- A-Lugol's iodine test
- B-Precipitin test
- C-Berberio's test
- D-Acro-reaction test

26- What is The telefono?

- A-Beating on sole
- B-Bilateral beating of ears
- C-Pulling of ears
- D-Hitting with telephon



27-Rupture aorta is one of the injuries of frontal impact of driver in motor vehicle accident, what is the most common site of rupture of aorta?

- A. Origin
- B. Isthmus
- C. descending part
- D. Arch

28-Decompression sickness occurs in which of the following conditions?

- A. Ascend low to high atmospheric level
- B. Descend high to low atmospheric level
- C. Ascend high to low atmospheric level
- D. Causes oxygen toxicity

29-An infant was brought to casualty with reports of violent shaking by parents what is most characteristic injury?

- A. Long bone fracture answer
- B. Ruptured spleen
- C. Subdural hematoma
- D. Skull bone fracture

30- Which of the following is not included in Munchausen by proxy syndrome?

- A. Admission of abuse by parents
- B. Illness does not suggest particular disease
- C. Child becomes ill in presence of the caregiver
- D. Laboratory and X-ray findings are negative

### III- Give an account on: (70 mark)

1-Chain of custody (30 mark)

2-Virtopsy (30 mark)

3-Dating of skeletal remains(10 marks)

سلسلة الحفظ  
و من العين  
بعض احمد حسن

كيفية الإمتحان :-  
الأستاذة الدكتور / ابتهاج المحلاري  
الأستاذة الدكتور / منى الجوهري  
الأستاذة الدكتور / نبينا احمد حسن

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(Clinical toxicology paper II)

Date : 2-11-2020 200 marks  
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I-Case scenario: (100 mark)

A 12-month-old male presents to your emergency department after ingesting a watch battery left out on the counter. He has been drooling since the incident and refusing his bottle

- Physical Examination:

T: 98.6°F HR: 137bpm RR: 32 breaths per minute BP: 100/62 mm Hg

- General: He is awake, alert and calm in appearance

- Head, Ear, Nose, Throat: Drooling from mouth

- Pulmonary: Clear to auscultation

- CV: Regular rate and rhythm without murmur, normal perfusion

.Extremities: Normal

1-What is the initial approach to this patient?-

2- What complications may be associated with these types of batteries?

3-On x-ray, the battery is located in the esophagus at the level of the aortic arch.

-What therapy is indicated?

II- Give reason: (10 mark each)

1- B-blocker is contraindicated in the therapy of cocaine toxicity

2-Patients taking theophylline are at risk of developing chronic theophylline toxicity.

3-Propranolol overdose can cause seizures and widening in QRS

4-Sodium nitrite treatment should not be used in nitroprusside overdose treatment

III- Give an account on the following:

1-Central and cardiac manifestations of acute opioid toxicity.-(15 marks)

2. Enumerate 5 toxicological causes for radio opacity in the abdomen.

(7.5 mark)

3-Clinical picture and treatment of digitalis toxicity (15 mark)-

4-Treatment of crotaline Envenomation (15 mark).

5- Date rape drugs (7.5 mark)

كيفية الإسعاف :-  
الاحتيازة الدكنورة :- إيناس الحملادى  
الاحتيازة الدكنورة :- منى الكوهرى  
الاحتيازة الدكنورة :- نبيته أحمه  
اسبك الحملادى  
د. منى الحلب  
نبيته أحمه





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All questions should be answered:

**I-Case scenario: (100 mark)**

A 47-year-old man was brought to the ED for ringing in the ears, nausea, and vomiting for approximately 16 h. He reported ingesting over 300 enteric-coated baby aspirin (81 mg) more than 24 h prior in a suicide attempt.

He denied shortness of breath, chest pain, palpitations, diarrhea, confusion, weakness, numbness, tingling, or urinary complaint.

Physical Examination:

Blood pressure 122/83 , Heart rate 122 B per Minute , Respiratory rate 22 deep., Temperature 36.5 , O<sub>2</sub> saturation 98%,

General: Awake in bed. Cooperative with exam. Answering all questions appropriately.

.Head ,Ear, Nose, Throat : Normocephalic. Moist mucous membranes

Eyes: Pupils 4 mm and reactive bilaterally. Extra-ocular movements intact.

Resp: No respiratory distress, but tachypneic and hyperpneic. Lung sounds clear to auscultation.

.CV: Tachycardic without murmurs, rubs, or gallops.

.GI/Abdomen: Soft, mild epigastric tenderness. No rebound or guarding.

.Musculoskeletal: No swelling, tenderness, or deformity

.Skin: Warm and dry. No rashes

Neuro: Alert and oriented to person, place, and time. Cranial nerves 2–12 intact except diminished hearing (to finger-rub) bilaterally.

Moving all extremities

.Grossly normal sensation.Normal muscle tone. No clonus.

A-What is the provisional diagnosis of this case?

B-What are the Laboratory Tests Useful in this case?. Justify your answer.

C-What Acid-Base Disturbances Can Be Expected in this case?

D.-How to manage the case?

**II-Choose the correct answer (2 mark each)**

1. Which of the following is considered as Lysergic Acid Diethylamide (LSD) use disorder(s)?
  - a. Sleeplessness.
  - b. Raised body temperature.
  - c. Increased heart rate and blood pressure.
  - d. Any of the above.
  
2. Alcohol intoxicated individual has less cognitive capacity available to process all on-going information, and so alcohol acts to narrow attention Which of the following describe that clinical picture?
  - a. Alcohol abuse
  - b. Alcohol myopia
  - c. Alcohol amnesia
  - d. Alcohol dependency
  
3. Hepatorenal syndrome occurs in mushrooms containing which of the following toxin?
  - a-Gyromitrin
  - b-Amatoxin
  - c-Norleucine
  - d-Orillanine

4-Which drug did the following man withdraw from?

A 33 old man with history of drug abuse came to the hospital complaining of somnolence, ravenous appetite, depression and lack of motivation:

- a-Heroin
- b-Phencyclidine
- c-Diazepam
- d-Amphetamine
- e-Ethanol

5- Which of the following samples is reliable for use in venom detection kits ?

- a-Urine
- b-Bite site
- c-Blood
- d-Clothe

6- What is the cause of toxaemia of snake venom without a bite ?

- a-Absorption through contact skin
- b-Direct eye contact
- c-Panic reaction from the snake
- d-The venom of Najanigracollis

7-Which of the following symptoms not included in ciguatera poisoning?

- a-Myalgia
- b-Flushing
- c-Metalic taste
- d-Sensation of loose ,painful teeth

8-A 46 y old man comes hospital with weakness and difficulty with gait . one month ago he was hospitalized for several days for treatment of intoxication occurred at work ,examination shows normal mental status and cranial nerves Which of the following is the most likely diagnosis?

- a-Cholinergic toxicity
- b-Cobalamine toxicity
- c-Intermediate syndrome
- d-Organophosphate toxicity