

MODULE-2
INTERNAL ORGANS EXAMINATION
Students' Manual



For students in the 6th semester

FORENSIC MEDICINE & MEDICOLEGAL
FACULTY OF MEDICINE
HASANUDDIN UNIVERSITY
2017

INTERNAL ORGANS EXAMINATION

In the previous module, students have studied about several types of wounds. The condition of the wound may be trivial or serious and the injured person may be alive or dead. The whole picture regarding the consequence of the wound can be explained only by the information in module-1 (external examination of the injury). Therefore in the second part of the module the students will have the opportunity to further investigate regarding the internal changes in the body as the impact of external injuries. Internal organs examination in traumatic wound victims is very important in order to investigate the possible cause of death in a dead victims.

A. LEARNING OBJECTIVES

After learning the module, students are expected to have the ability in understanding the basic mechanism related to the occurrence of the injury/traumatic wound, and the condition associated with injury/trauma and the characteristic of the wound. This includes wounds caused by stabbing, blunt trauma (punching, kicking, beating etc), strangling, biting, shooting, falling from a height, being hit by a vehicle, and blast trauma from explosives. In addition, students are also expected to distinguish the time when an injury/traumatic wound happened, whether it happened pre-mortem or post-mortem (prior or after the death of the victims), and to establish the closest possible cause of death (COD) using Proximus Mortis Approach (PMA), in conditions where death is the result of a trauma/injury.

B. LEARNING TARGETS

After learning the module, the students are expected to be able to:

1. Describe and interpret the autopsy findings.
2. Explain the pathomechanism of the death as a result of the injury/trauma using the knowledge of anatomy, histology, and physiology of the human body.
3. Establish the closest possible cause of death (COD) using Proximus Mortis Approach (PMA).
4. Estimate the time of death (postmortem interval) using thanatology.

C. LEARNING STRATEGY

1. A group discussion, facilitated by a tutor
2. A group discussion, without a tutor
3. Consultation with experts
4. Experts lecture
5. Self-learning activities in the library with books, magazines, slides, tape recorder, video or the internet.

D. SCENARIO

An autopsy was performed on a body due to a police request (see scenario).

Students are expected to:

1. Describe and interpret the autopsy findings.
2. Explain the pathomechanism of the death as a result of the injury/trauma using the knowledge of anatomy, histology, and physiology of the human body.
3. Establish the closest possible cause of death (COD) using Proximus Mortis Approach (PMA).
4. Estimate the time of death (postmortem interval) using thanatology.

Scenario 2.1

On a police request, an autopsy was performed on an unidentified body of a young male. According to the statement in the police request, the body was found hanging in an unoccupied house.

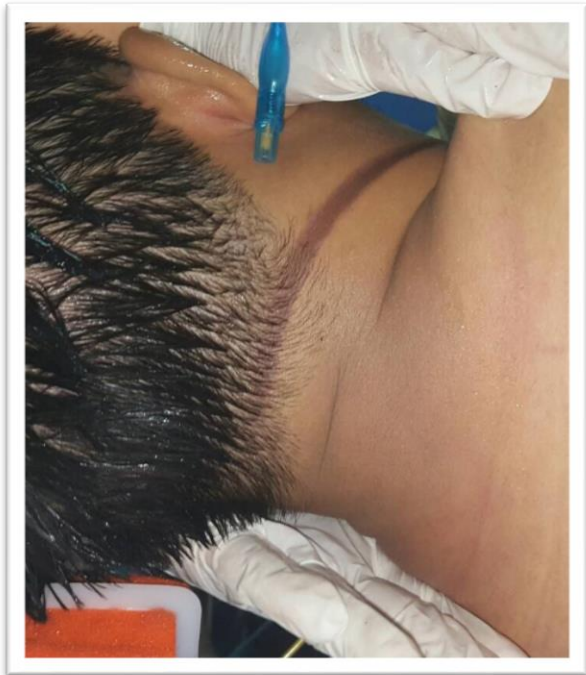
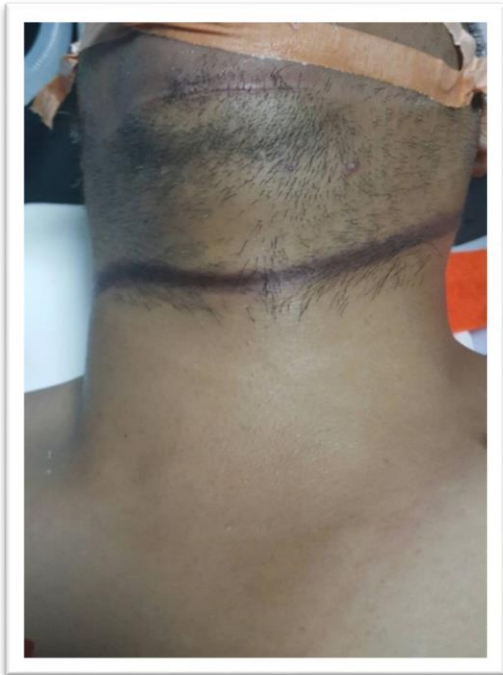
Autopsy findings:

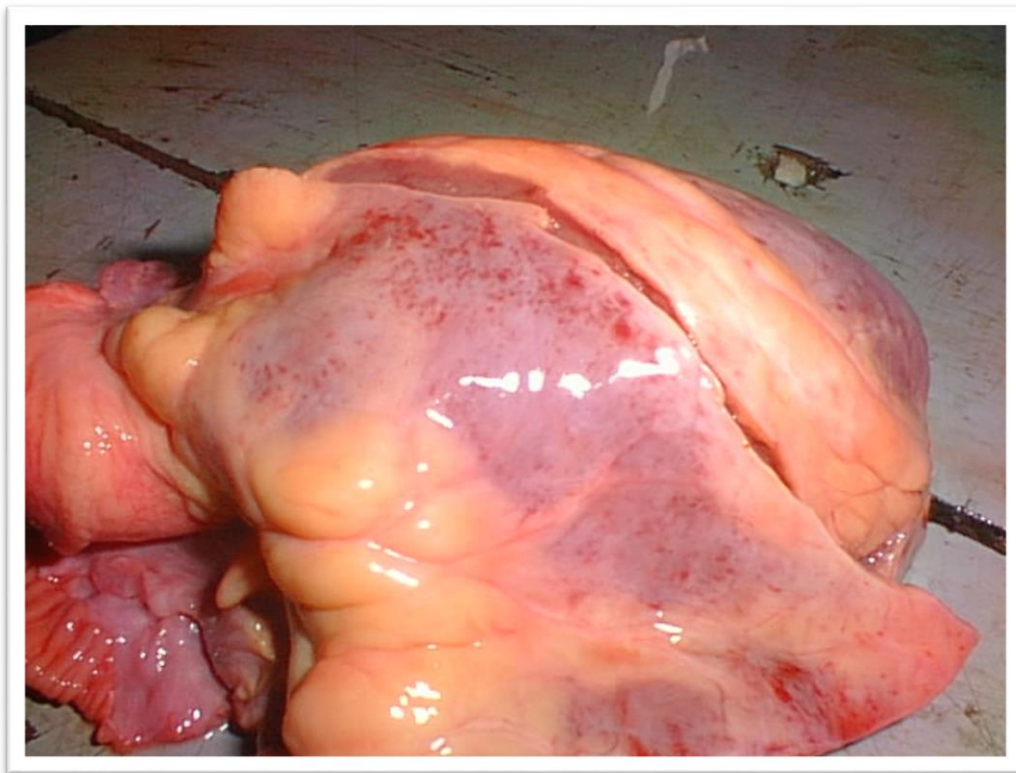
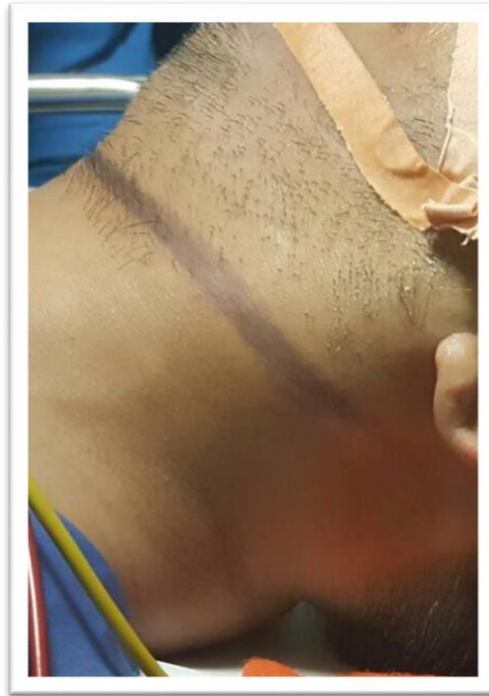
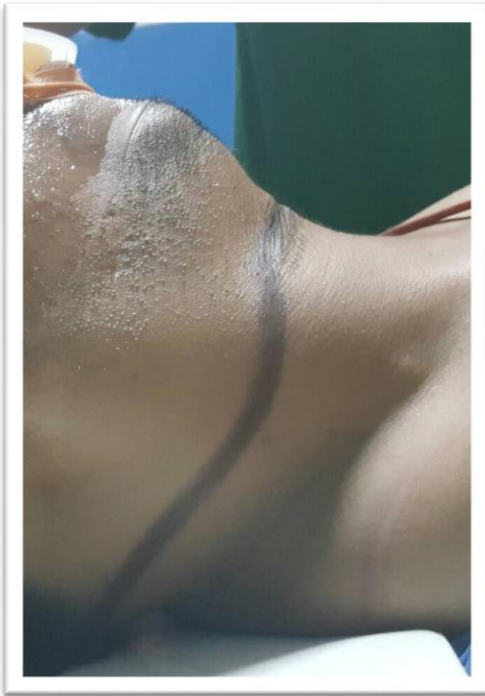
a. Thanatology:

- Postmortem rigidity: not found.
- Postmortem lividity: dark red, found on lower extremities, not disappeared with pressure.
- Signs of decomposition: greenish color on the lower right of the abdomen.

b. Pictures of external and internal examination:







c. Supporting examination:

- Histopathology: signs of internal organs congestion.
- Toxicology: not performed.

Scenario 2.2

On a police request, an autopsy was performed on a 35 year old male body.

According to the statement in the police request, the body was allegedly shot by an unidentified suspect. There was no bullet or blood found on the crime scene.

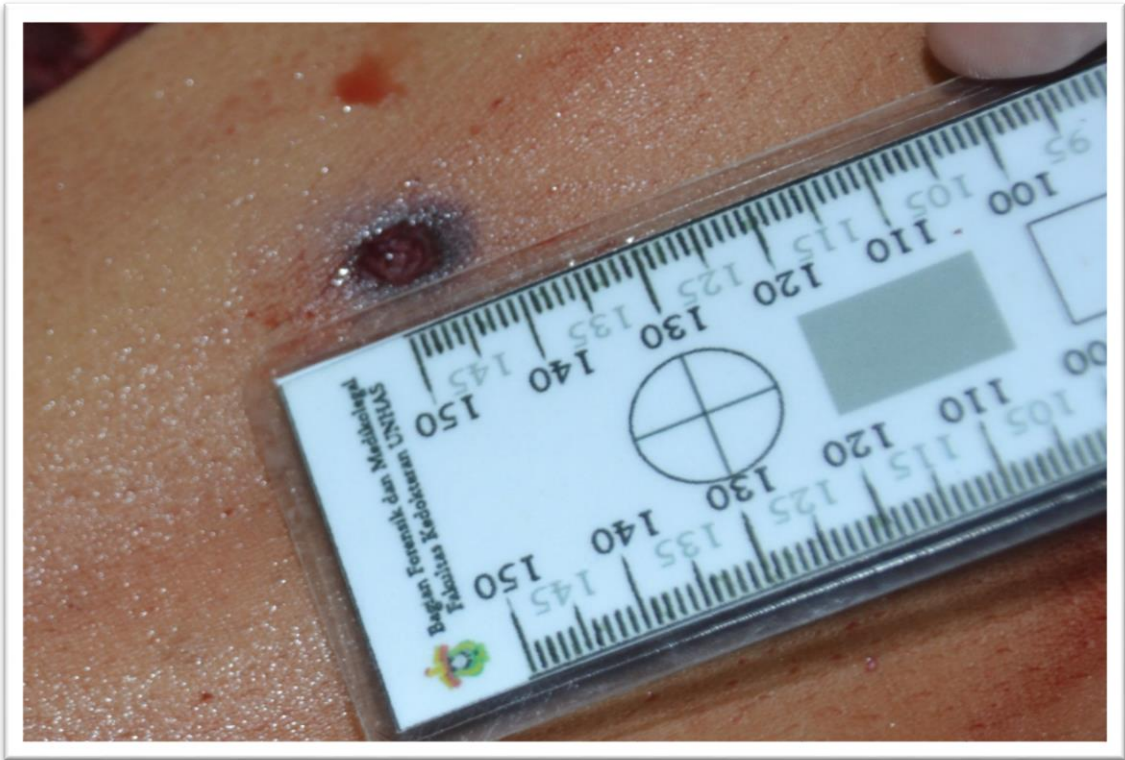
Autopsy findings:

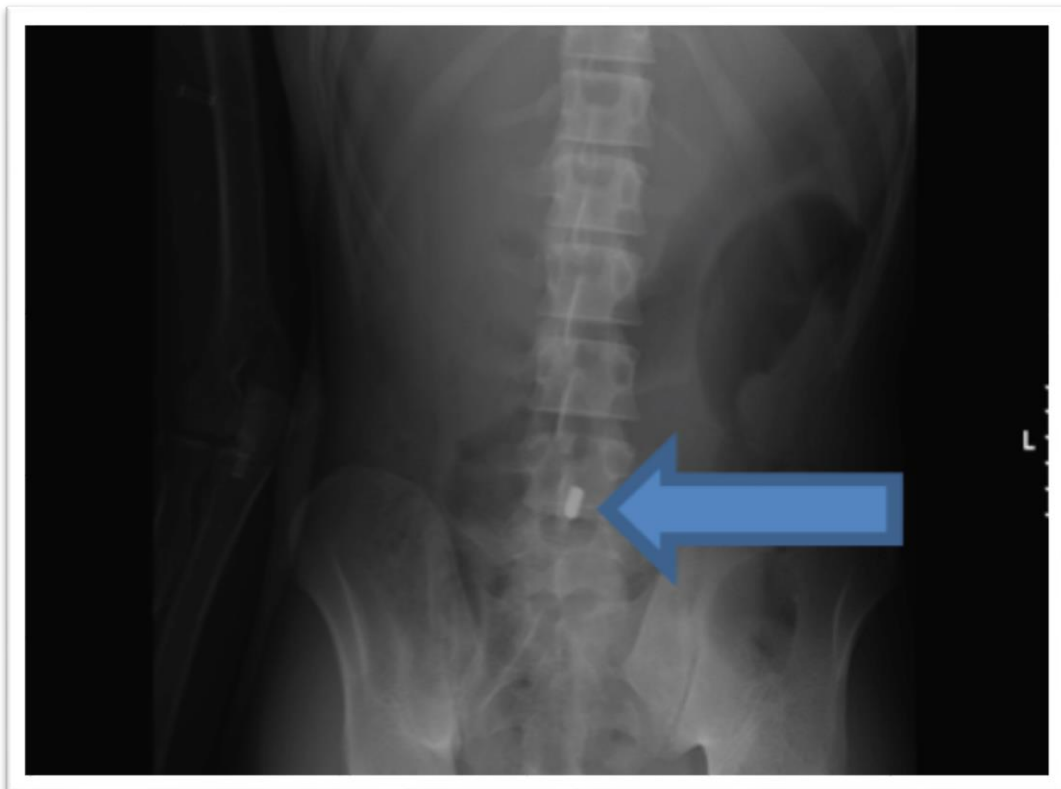
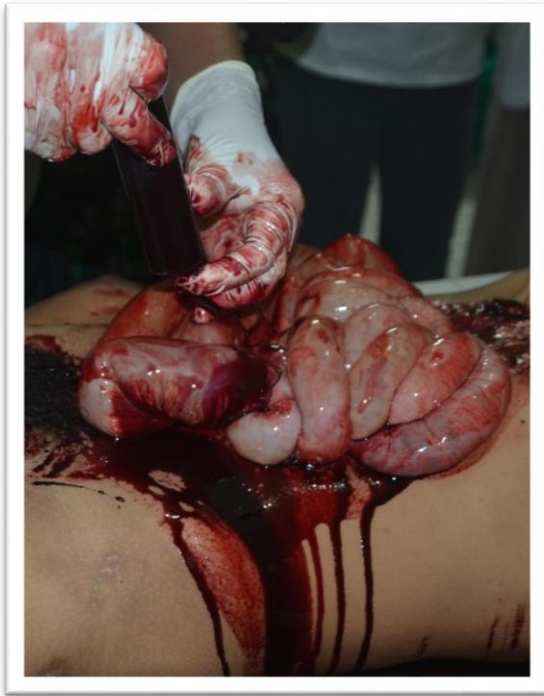
a. Thanatology:

- Postmortem rigidity: found on the victim's jaw, elbows and wrists, knees and ankles, fingers, full rigidity.
- Postmortem lividity: dark red, found on the head, neck, back, and buttock, not disappeared with pressure.
- Signs of decomposition: not found.

b. Pictures of external and internal examination:







c. Supporting examination:

- Radiology: picture attached.
- Histopathology: there were only a few red blood cells in the sinusoids of the liver and the spleen.

E. TASKS FOR STUDENTS

1. After reading the scenarios thoroughly, the students must discuss the cases in a group discussion. Both the leader and the secretary are chosen by the members of the group.
2. Conducting a self study by providing data/information to support the discussion.
3. Conducting a self-coached group discussion (without tutor), brain storming among the group member to analyze and synthesize new information.
4. Consulting the problems revealed during the PBL session to the experts for a better understanding about the case.
5. Attending the provided experts' lecture for unsolved problems.

F. PROBLEM SOLVING PROCESS

In a group discussion, the students are expected to solve the problems in the scenarios by conducting these following 7 jumps of problem solving process:

1. Clarifying unclear terms stated in the scenario, then defining the keywords/key statement(s).
2. Identifying the basic problem of the scenario, by creating some leading important questions.
3. Analyzing the problems by answering questions provided from group members.
4. Classifying the answers.
5. Developing study objectives that must be achieved by the students during the case discussion.
6. Looking for other supporting information related to the above cases.
7. Reporting the result of discussion and synthesizing the other identified information.

Notes:

- Step 1 to 5 are conducted during the first coached-tutorial with the tutor.
- Step 6 is a self study; performed out of the class either by a group discussion or by student solely, which will then be discussed together in an un-coached group.
- Step 7 is conducted during the second coached-tutorial with the tutor.

G. SCHEDULE

1. First meeting in a general lecture; the lecture delivers primarily a one way communication of lecturing, followed with asking question session.

Objectives:

- Explaining the modul and how to complete the provided tasks.
- Choosing a group leader and a secretary.
- Brain storming for step 1 to 3
- Finally on going to self-study.

2. Second meeting.

Objectives:

- A group discussion, facilitated by a tutor and to report the self-study result and accomplish the PBL process to the 5th step (study objectives 1 and 2 in first week and 3 until 6 in second week)
- Collecting other new necessary information
- Reporting the last discussion result as well as for synthesizing the recently identified information.

3. Third meeting.

Objectives:

Conducted in a classroom, with a panel discussion format, in which the students report the final results of each group's discussion, clarifying things that remain unsolved by the groups, and sharing information and findings with other groups.