FORENSIC MEDICINE - INTRODUCTION

Definition:

- branch of medicine that applies the principles and knowledge of the medical sciences to problems in the field of law
- "fusion of physicians' knowledge and thought of justice"
- connection between natural and social sciences

Issues:

- genesis of mechanism, type and severity of injuries
- connection between injury and illness / death
- cause, manner and mechanism of death; identification

History:

- Babylon – Code of Hammurabi: rape, abortion, physical injuries, paternity, professional responsibility; public exposition of corpses (only external examination)
- China (220. BC): obligatory expert testimony of injuries
- India: competency of witnesses
- Rome and Greece: established the cause and manner of death (public exposition of corpses)
- 50 BC - old roman practice: clear parameters for autopsies
- 44 BC - body of Julius Cesar: official autopsy
- Galen: contributed to understanding of anatomy (autopsies on pigs and monkeys)
- Egypt: principle of physician's responsibility; autopsies in religious purposes and mummification needs)
- Talmud: determination of blood traces, classification of injuries, physician's responsibility
- Codex Justinianus (530.): *Codex, Digesta, Institutiones, Novellae* - occasio et conditio mortis, nexus causalis
- "MEDICI NON SUNT PROPRIAE TESTES, SED MAGIS EST JUDICIUM QUAM TESTIMONIUM"
- Fall of Roman Empire
- Carlo the Great, 8th century: *Capitularia* – requested medical opinion (expert's testimony)
- Holy inquisition, 1233: torture of live and dead
- Bartolomeo da Varignana: pioneer of forensic pathology, paid by the city of Bologna for performing the examination of those died under suspicious circumstances (1302)
- Renaissance: first autopsies, medical papers
- 1374 – University of Montpelier: autopsies were allowed
- In 1489, Leonardo da Vinci began a series of anatomical drawings (dissected around thirty human specimens until he was forced to stop under order of Pope Leo X)
- Galenic doctrine in Europe was seriously challenged in the 16th century by Andreas Vesalius (1514-1564): first complete anatomic textbook *De humani corporis fabrica libri septem*
- Carlo V, 1532: *Codex Carolina* – requested medical opinion in cases of homicides and infanticides
- Pare, Zacchia, Tardieu, Lombroso, Orfill

- *Questiones medico-legales,* P. Zacchia - obligatory textbook until 19th century
- 17th century: regular education
- 2 periods: juridical and medical

Development in Croatia:

- Law of Vinodol, 1288 - (bodily injuries, rapes, honors violation)
- Rules of Dalmatian cities, 13th – 14th cent. obligation to report injuries, Dubrovnik law!
- Rijeka's contracts on treatments, 15th cent. (barbers)
- Mechanism of protection of patients and physicians
- Lectures on School of Law (M. Sachs, 1861)
- N. Selak (1899, "Kratka sudska medicina")
- Lj. Jurak – School of Animal health
- E. Miloslavić – School of Medicine, 1932

Pato-anatomic autopsy

- Goal: to establish pathological changes and cause of death
- 1701 - Giovanni Battista Morgagni = father of pathological anatomy
- beginning 19th cent. - Karl von Rokitansky = Manual of pathology (the base for autopsy technique)
- Rudolph Virchow – methods of microscopic examination
- Today: in institution; upon request of clinicians, coroners or relatives – in cases of NATURAL deaths

Forensic autopsy

- upon order of the court / prosecutor office, in cases of:
    - violent death / sudden deathh
    - unclear death / suspicious death
- in institution:
    - perioperative deaths
    - maternal deaths
    - evaluation of diagnostic/therapeutic methods
    - in clinical trials
    - in sudden and unexpected deaths
- upon request of coroner
- upon request of relatives
- In cases of homicides, suicides and accidents
- When? According to CPC: in case of suspition!
- role of coroner:
    - unclear death – under unknown circumstances and
    - suspition death – under circumstances that could guide to violent death

The harmonization of medico-legal autopsy rules - Recommendation No. R (99)
Scope of the recommendation

1. In cases where death may be due to non natural causes, the competent authority, accompanied by one or more medico-legal experts, must investigate the incident or death scene, examine the body and decide whether an autopsy should be carried out.
2. Autopsies should be carried out in all cases in which the manner of death is uncertain and in all obvious or suspected non natural deaths where involvement of a third party cannot

be ruled out, also if there is a delay between suspected causative events and death, in particular in the following situations:

a. homicide or suspected homicide;
b. sudden unexpected death with uncertain manner of death, including sudden infant death;
c. suspected medical malpractice and neglect;
d. accidents, either transportational, occupational, recreational or domestic;
e. occupational disease and hazards;
f. technological or environmental disasters;
g. death in custody or death associated with police or military activities;
h. unidentified bodies or body parts.
i. suspected violation of human rights such as suspicion of torture and/or any other form of ill-treatment.

3. Medico-legal experts must exercise their functions with independence and impartiality. They may not be subject to any form of pressure and they must exercise their functions in an objective manner, in particular in the presentation of their results and conclusions.

General principles

1. In cases of obvious or suspected non natural death, the physician to first attended the decedent must report to the competent authorities in accordance to cantonal laws, the latter deciding whether an examination should be carried out by a qualified medico-legal expert or by a physician familiar with medico-legal examinations.
2. Particularly in cases of homicide or suspicious death, medico-legal experts should be informed without delay and immediately attend the death scene, where they shall have unrestricted access. There should be an adequate coordination among all persons involved, in particular among judicial representatives, medico-legal experts and police.
3. The medico-legal expert has to adapt his investigation to the actual case and circumstances.