



# Medico-Legal Autopsy

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- Forensic Medicine or Legal Medicine :-  
Deals with the application of Medical Knowledge to AID in the administration of Justice.
- Forensic – Open forum – Debating place – Court of Law
- It's a Practical Science Bridging the LAW & MEDICINE,

Medical Aspects of Law...



Forensic Medicine can be broadly divided into :-

- Clinical Forensic Medicine :- deals with the examination of the LIVING individuals.
- Forensic Pathology :- Deals with interpretation of Autopsy Findings in the Medico-Legal investigation of Death (Forensic Thanatology – study of Death).



# History of Forensic Medicine

- Kautilya's Arthashastra (460 to 377 B.C.) states that Death can be caused by :-
- Stopping the Breathing by 4 ways (Strangling, Hanging, Asphyxiation or Drowning)
- Physical Injuries in 2 ways (by Beating or by Throwing from a Height)
- Poisoning (poisons, snake or insect bite, or narcotic Drugs)



- Kautilya's Arthashastra describes the necessity of Autopsy in establishing the Cause of Death. It states that a Post-mortem shall be conducted on any case of Sudden (Unnatural) Death, after smearing the body with oil to bring out Bruises, Swellings and other injuries.



# Medico-Legal Autopsy

- 1<sup>st</sup> post-mortem was conducted at Bologna, Italy
- In India, The first Recorded Medico-Legal Autopsy was conducted in Chennai by Dr Edward Bulkley on 28<sup>th</sup> Aug 1693 on the body of Mr. James Wheeler, Member of Council.
- In 1914, Lt. Colonel D. G. Crawford in his “A History of Indian Medical Service” states that “A Very important part of a Civil Surgeon’s duties is performance of Medico-Legal Post-mortem”.



# Post-Mortem Examination (Autopsy)

- Investigative scientific Dissection of Dead Body.

## TYPES

- Clinical or Academic Autopsy :- Performed with the consent of Relatives.
- Medico-Legal Autopsy :- is performed on the Authorization of the Legal Authorities in circumstances relating to suspicious, sudden, obscure, unnatural and Criminal Deaths.



# Dissection Methods:

- ✓ In cases of suspected neck pathology, incision is made from the suprasternal notch to the symphysis pubis and dissection of the neck is done at last after removing the contents of all the three major cavities of the body;- **Blood less dissection of the neck.**





# Dissection methods

- ✓ Heart - Along the way of blood flow
- ✓ Lungs - From the floor of the tongue along the respiratory passage



# Aims & Objectives of MLA

- To find out the cause of Death, whether natural or unnatural.
- To find out the manner of Death, whether accidental, suicidal or homicidal.



- Estimate the Time Since Death.
- To establish the identity when not known.
- Document all the injuries, find out how the injuries occurred and their time of infliction.



- To collect evidence in order to identify the object causing Death and to identify the Criminal.
- To retain relevant organs and tissues as Evidence.
- In newborn to determine whether Stillborn, Deadborn or liveborn.



# Death:

- Death is defined as the “Complete and irreversible cessation of Circulation, Respiration and Brain Functions”.
- As long as oxygenated blood is maintained to the Brain Stem, life continues to exist.



# Suspended Animation

- ✓ A condition in which the vital Functions of the body come down to a minimum level, just compatible with that of life. The person appears apparently dead but life is still present.



- ✓ 1) New born
- ✓ 2) Electrocution
- ✓ 3) Drowning
- ✓ 4) Hypothermia
- ✓ 5) Drugs: Mainly morphine, barbiturates and alcohol.
- ✓ 6) Induced voluntarily by Practice (yoga) – Voluntary suspended animation.



# Brain stem Death

- ✓ Brain stem Death is a condition in which the patient is Irreversibly Unconscious and Irreversibly Apnoeic (damage to the respiratory center) due to compression / damage to the brain stem.





# Death

## Natural and Unnatural Death:

- ✓ According to Causative Agent death may be classified as:
- ✓ Natural: Death is purely due to disease.
- ✓ Unnatural: It could be Homicidal, Suicidal or Accidental.



# Sudden Death:

- ✓ Death is said to be sudden or unexpected when a person not known to have been suffering from any disease, injury or poisoning dies within 24hrs after the onset of terminal illness.



# Inquest:

## Inquest:

(in - in; quasitus - to seek) (to seek into)

- ✓ Inquest is defined as the preliminary legal inquiry into the cause, manner and circumstances of any unnatural, sudden and suspicious death.



# Types of inquest:

There are basically four types of inquest

- ✓ (i) Police inquest
- ✓ (ii) Magistrate inquest
- ✓ (iii) Coroner's inquest
- ✓ (iv) Medical examiner system of inquest.
- ✓ In India, there are only two types of inquest (police inquest and magistrate inquest).



# Magistrate Inquest

- ✓ (i) Dowry deaths: Unnatural death of a female within 7 years of Marriage.
- ✓ (ii) Death in police custody
- ✓ (iii) Death during police interrogation
- ✓ (iv) Death due to police firing
- ✓ (v) Death in a psychiatric hospital
- ✓ (vi) Exhumation



# Injury

- ✓ **Section 44 IPC** defines injury as “Any harm what so ever illegally caused to any person in body, mind, reputation or property”.



### ✓ Hurt (Sec 319 IPC):

- ✓ Any bodily pain, disease or infirmity caused to any person is called Hurt.

### Assault (Section 351 IPC):

- ✓ Any offer of threat or attempt to apply force to the body of another in a hostile manner. Execution of such act amounts to ‘battering’



## ✓ Mechanical Injury:

- ✓ Injuries caused by application of Physical force are called Mechanical Injuries.





- ✓ 1) Nature and shape of the weapon
- ✓ 2) The amount of force transmitted.
- ✓ 3) The rate of application of force.
- ✓ 4) The nature of the tissues involved.
- ✓ 5) The surface area over which energy is delivered.



# Mechanical Injuries

## ✓ (i) Injuries caused by Blunt Force:

- 1) Abrasion
- 2) Contusion
- 3) Laceration
- 4) Fracture and/or Dislocation



## ✓ **Injuries caused by Sharp edged weapons:**

- ✓ 1) Injuries caused by single edged light cutting weapons: Incised wound.
- ✓ 2) Injuries caused by Heavy cutting weapons: Cut/Chop wounds.

## **Injuries caused by pointed weapons:**

**Stab Wounds**



## **Firearm Wounds:** Shot gun and Rifled firearm Injuries.

- ✓ Firearm wounds can also be grouped under mechanical injuries, since the projectile which produces the injury on the body is a pointed weapon. Hence, these injuries are also a form of stab injuries.



# Medico-Legal aspects of Injuries

- ✓ Sign of violence
- ✓ Force involved: Blunt or sharp
- ✓ Time of infliction
- ✓ Position of the victim and assailant



Thank you..