

FORENSIC AUTOPSY REPORT

CASE NUMBER: 14

Name of the Decedent: Aanya Rahman

Age: 32-35 years old

Sex: Female

Date and Time of Autopsy:

Time of Discovery:

PMI: 12-24 hours prior to discovery

Performed By: R. Amisa, Medical Trainee under Supervision, Moncton Medical Center

Location of Autopsy: Forensic Pathologist Lab, University Medical Teaching Hospital

Authority Requesting Autopsy: Office of Medical Examiner

Summary of Case:

The victim was found under a small pedestrian bridge, near the river in a public park. Body partially submerged in water. Multiple evidence of struggle, disturbance, and violence.

Evidence / Observations from Scene:

- No weapons found on or near the body.
 - The park area is somewhat secluded, but has foot traffic.
 - Broken glasses with traces of blood found nearby.
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Condition of Body upon Arrival:

- Body partially submerged in shallow water.
- Visible injuries present.

External Examination:

Apparent Sex: Female

Height: 5'5" / 165 cm

Weight: 132 pounds / 60 kg

Build: Well-developed and well-nourished adult female

Ethnicity: South-Asian

General appearance:

- **Hair:** Black, shoulder-length, wavy. Damp from immersion. Scalp intact.
- **Eyes:** Closed. Dark brown irises
- **Lips:** Pale and swollen from submersion.
- **Skin:** Medium brown with neutral undertone.
- **Nails:** Short and unpainted; soil and debris under several nails.
- **Dentition:** Intact, no recent dental work.

Clothing:

- **Outer garments:** Black cotton hoodie, grey sweatpants— all wet and mud stained. Pantstorn at right knee.
- **Undergarments:** Present.
- **Feet:** White sneakers.
- **Accessories:** Small stud earrings on both ears.

Wounds/ External injuries:

- **Left jawline:** Oval bruise measuring 3.0 cm × 1.0 cm, bluish-purple, consistent with blunt impact.
- **Posterior neck:** Irregular abrasion 1.5 cm × 0.8 cm, shallow; edges rough, possibly from contact with a hard or sharp surface.
- **Left ribs (anterior):** Two faint contusions each about 2.0 cm × 1.5 cm.

- **Right forearms:** Three superficial linear abrasions ranging 2.5–4.0 cm in length, oriented obliquely; appears recent.
- **Left forearms:** Two abrasions, 3.0 cm and 1.8 cm, respectively; both superficial.
- **Right knee:** Abraded area 4.5 cm × 3.0 cm; clothing torn at this site.
- **Left knee:** Smaller abrasion 2.0 cm × 1.2 cm.
- **Minor scratches** (0.5–1.0 cm) scattered on posterior parts of the hands.

Postmortem changes:

- Moderate rigor mortis, influenced by cold water exposure, suggests the estimated time of death at 15th October 2025)
- Livor mortis is fixed on the posterior aspect.

Summary:

- Overt evidence of the victim's attempts to defend herself and the wounds inflicted by the offender.
 - No sign of accidental wounds.
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Internal Examination:

- **Head and Brain:**
 - Intact scalp; no underlying hemorrhage
 - Unfractured skull
 - Brain is slightly edematous; no intracranial bleeding/ contusion.
- **Neck:**
 - No fractures of hyoid bone or thyroid cartilage
 - Faint bruising on the left side of thyroid cartilage and larynx revealed through soft-tissue dissection.
 - Trachea contains a small amount of frothy pink liquid.

- **thorax:**
 - Heart: Unremarkable
 - Ribs intact; mild contusion on the left anterior chest wall consistent with external bruising.
 - Lungs are heavy and water-logged. Signs of pulmonary edema present.
 - No evidence of natural disease
- **Abdomen:**
 - Liver: Smooth capsule along with mild congestion.
 - Spleen: Soft and congested.
 - Kidneys: Mild cortical congestion.
 - Pancreas, intestines, adrenal glands are unremarkable.
- **Genitourinary System:** No sign of trauma.
- **Musculoskeleton System:**
 - No fractures of long bones.
 - Small intermuscular hemorrhage beneath left chest bruises.
 - No deep injury identified.

Organ	Weight
Brain	1,350 g
Heart	320 g
Right lung	620 g
Left lung	580 g
Liver	1,520 g
Spleen	160 g
Right kidney	140 g
Left kidney	145 g
Stomach	150 mL (partially digested food; last meal estimated 2-3 hours prior to death.)

Bladder	80 mL of clear urine
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Toxicology Report:

Specimen Received:

Femoral blood, vitreous humour, urine, liver tissue, and gastric contents were submitted.

Analytical Findings:

- **Alcohol (Ethanol):** Not detected (<10 mg/dl)
- **Common Drugs of Abuse:** Negative for cannabinoids, benzodiazepines, barbiturates, cocaine, amphetamines.
- **Prescriptive Drugs:** Trace levels of diphenhydramine (antihistamine) detected in femoral blood (0.15 mg/L), within therapeutic range; not sufficient to contribute to death.
- **Pesticides and volatile hydrocarbons:** None detected.
- **Cyanide:** Not detected
- **Carboxyhemoglobin (Carbon monoxide):** Not detected

Interpretation:

No significant substance were detected. The minor diphenhydramine level is consistent with recent use for allergy or sleep aid purposes; not contributory to the victim's death.

Toxicology findings do not indicate poisoning, drug-related incapacitation, or overdose prior to drowning.

Histological Examination:

Tissue sections from the heart, lungs, skeletal muscle, liver, and kidneys were examined microscopically.

- **Brain:** Mild cerebral edema, no hemorrhage or trauma-related microscopic findings
- **Heart:** No necrosis, inflammation, fibrosis identified. Myocardial fibers appears normal.
- **Lungs:** Alveoli are damaged and contain watery fluid with scattered debris. Presence of occasional hyaline membrane formation and alveolar macrophages contain debris.
- **Liver and Kidney:** Congestion present, but no specific chronic disease noted.

Diatoms Examination:

Samples collected from: Femoral bone marrow, liver, lung tissue, and the water of the discovery site. Done through light microscopy and acid digestion.

Diatoms Identified:

- Navicula sp
- Cyclotella sp
- Synedra sp

Same species were identified in the water sample of the body's discovery location.

Interpretation: Both histology and diatom examination demonstrate classic features of ante-mortem drowning. This means that the victim was submerged alive, allowing water and its microscopic contents to enter her body before death.

Discussion:

The decedent was found under a bridge in a public park. The defensive wounds indicates the unsuccessful attempts for defence. While the toxicology report reveals no significant information, histology and diatom examination exhibited evidence of the victim being submerged while alive— consistent with the

defensive injuries, meaning that Aanya tried to defend herself from the offender in the process.

The killer likely knew about the decedent's schedule, planned it preemptively, and took the opportunity of the park being quite secluded.

No evidence supports natural or accidental, supporting classification as homicide.

Cause of death: Drowning

Mechanism of Death: Airway obstruction→Water aspiration →Hypoxemia + Asidosis→Multiple organ consequences →Cardiac arrest

Manner of Death: Homicide

Evidence Supporting Homicide:

- Multiple abrasions on forearms and knees along with minor contusions on ribs were likely from the victim's attempts to defend herself or crawl—consistent with her broken glasses (With traces of blood) found near the body and pants torn at knee.
 - The killer was possibly aware of the victim's schedule and thus picked a scheduled park.
 - Blunt trauma to posterior neck and jaw indicates that someone put their hands or something hard on her.
 - Diatoms confirm that she was drowned alive— which means she was intentionally submerged while conscious alive to inhale water.
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Signature

Ruhi A.

Medical Trainee under Supervision

16th October 2025
