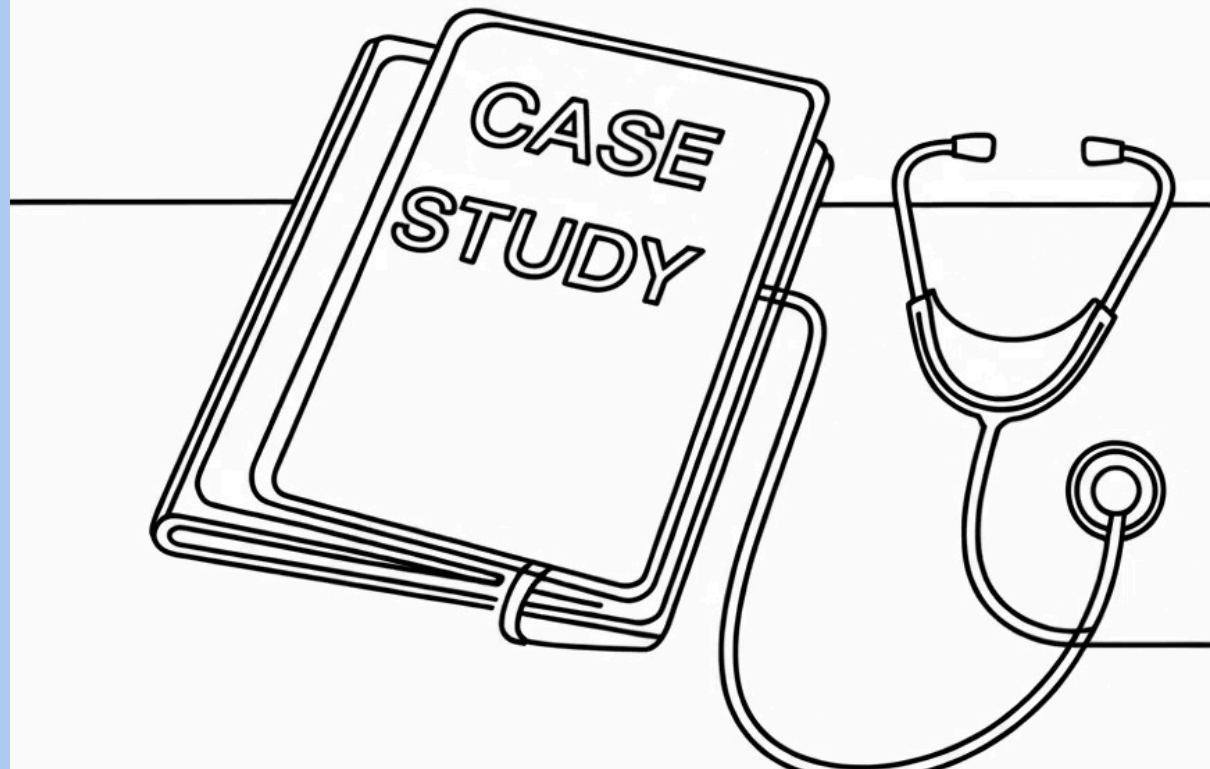
CASE STUDY 1

Inhaled Anesthetics

Family history of anesthetic complications



Patient Profile

Name

Maria D., 46 y/o female

Height/Weight

165 cm / 75 kg (BMI 27.5)

Procedure

Laparoscopic cholecystectomy

NPO

> 8 hr solids, > 4 hr clears

History

Medical History

- **PMH:** GERD, obesity, mild asthma (well-controlled)
- **PSH:** Tubal ligation 15 yrs ago — record notes "prolonged recovery, jaundice post-op."
- **Family Hx:** Mother had "severe liver failure" after an operation in the 1970s.

Current Medications & Allergies

- **Medications:** Omeprazole, albuterol PRN
- **Allergies:** NKDA

Labs

Test	Result	Interpretation
AST/ALT	85/97 U/L	Mildly elevated
Alk Phos	130 U/L	Borderline high
T. Bili	1.4 mg/dL	Mild ↑
INR	1.1	Normal

Airway & Exam

Airway Assessment

- Mallampati II, full neck ROM, TMD > 6 cm

Lungs

- Clear; occasional expiratory wheeze

Cardiovascular

- Regular; no murmurs

Abdomen

- RUQ tenderness

Neuro

- Normal

Imaging

RUQ ultrasound

Cholelithiasis

EKG

NSR 78 bpm, QTc 420 ms

Anesthetic Implications

Critical Risk Factor

Prior "jaundice after anesthesia" → suspicious for **Halothane hepatitis (immune-mediated)**.

Agents to Avoid

Avoid all halogenated agents forming TFA metabolites (Halothane, Enflurane, Isoflurane, Desflurane).

Preferred Approach

Preferred: Sevoflurane (no TFA formation) or TIVA.

Management Strategy

- Maintain low volatile concentration (< 1 MAC) to preserve hepatic blood flow.
- Post-op LFT monitoring.