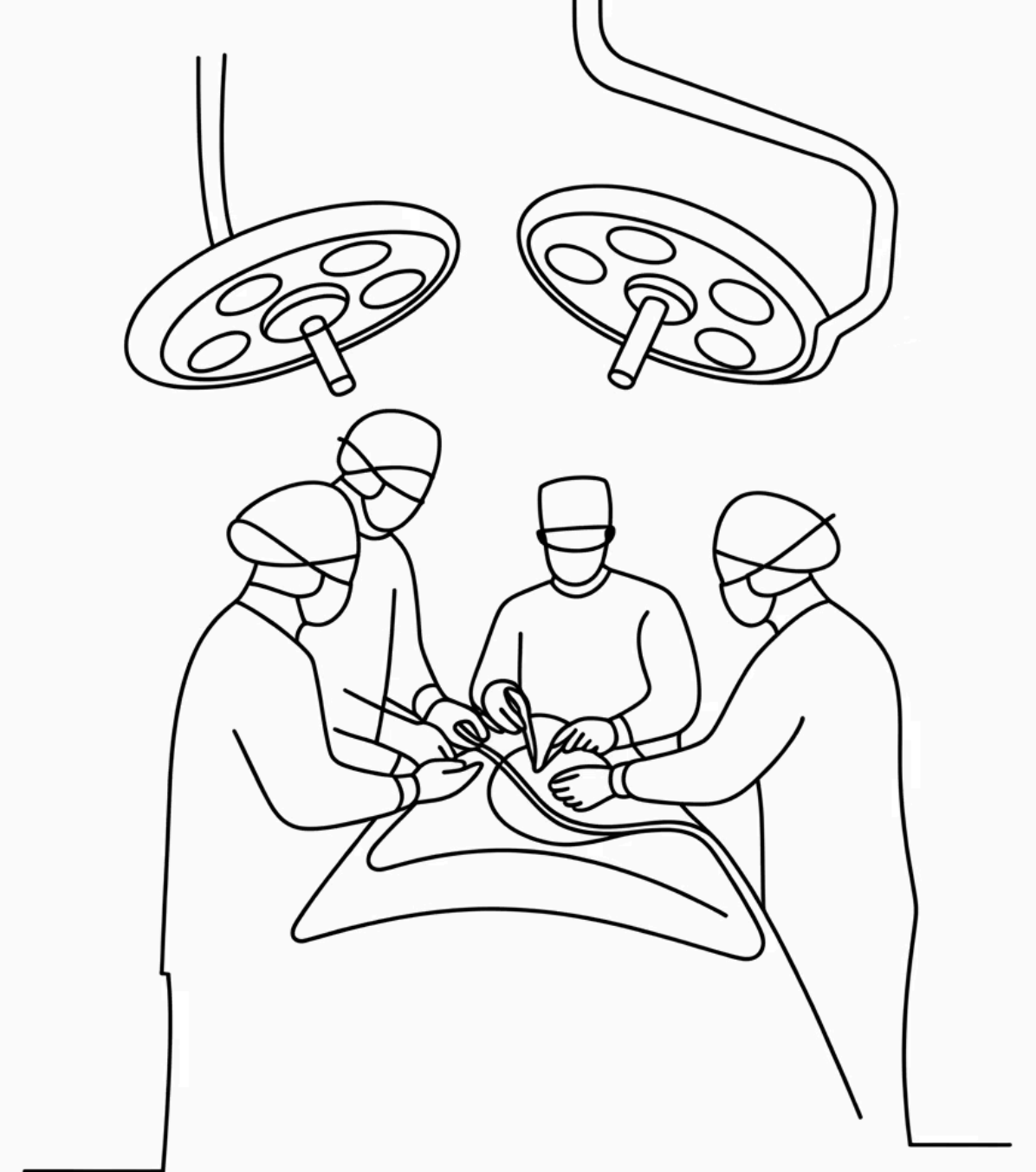
CASE STUDY 2

Inhaled Anesthetics

A comprehensive review of anesthetic management for coronary artery bypass grafting



Patient Profile

Name

James K., 67 y/o male

Height/Weight

178 cm / 88 kg (BMI 27.8)

Procedure

CABG ×3 (on pump)

NPO

10 hr solids

History

PMH

CAD (positive stress test), HTN, Type 2 DM, hyperlipidemia

PSH

Colon resection (uneventful, 2005)

Meds

Metoprolol, ASA, atorvastatin, metformin (held)

Allergies

None

Family Hx

Negative for MH

Cardiac Evaluation

EKG

Q-waves in inferior leads

Cath

3-vessel disease (LAD 70%, RCA 90%, Circ 80%)

Echo

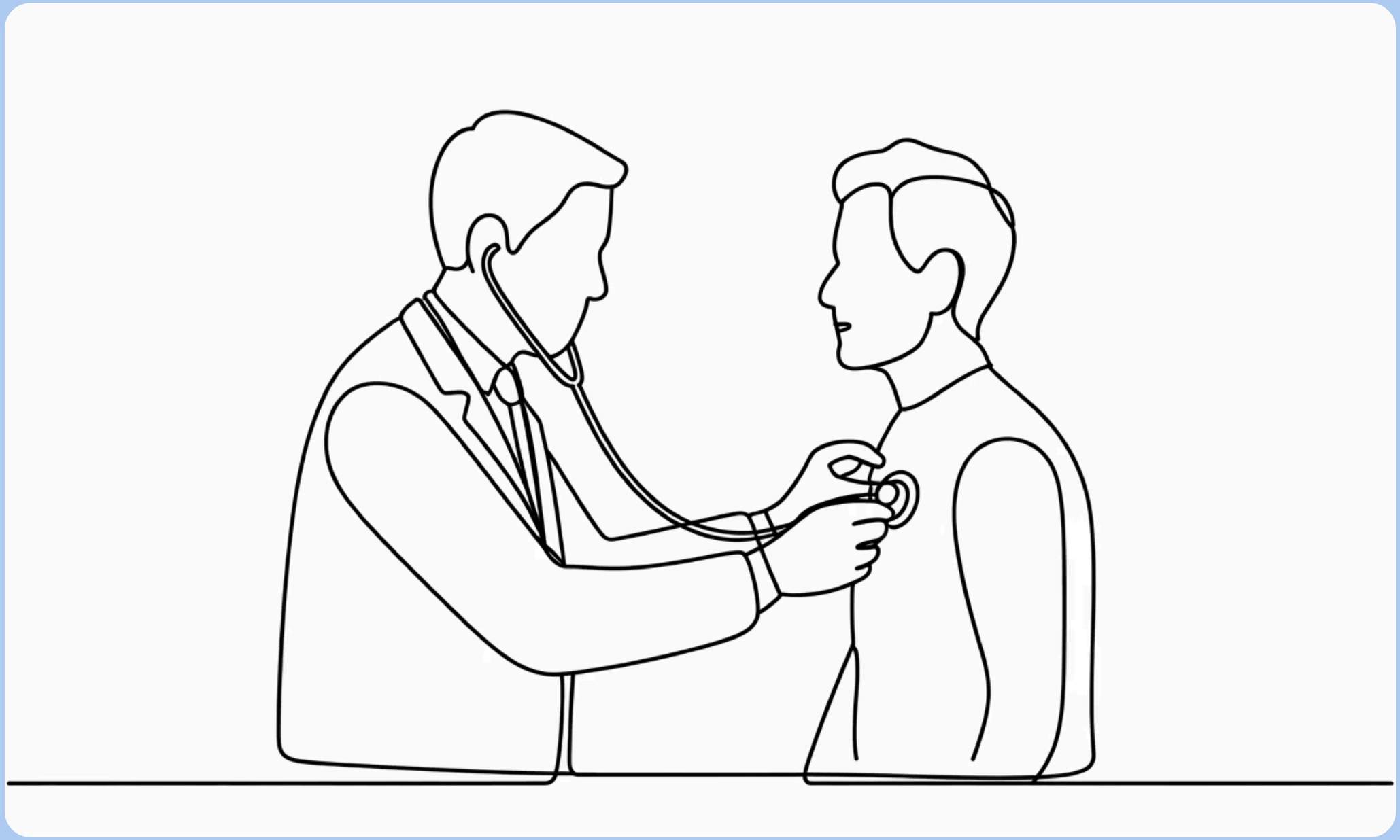
EF 45%, mild MR

Labs

1.0	4.3	13.6	125
Cr	**K^+**	**Hgb**	**Glucose**
mg/dL	mEq/L	g/dL	mg/dL

Exam

Mallampati II, no airway limitation; clear lungs; S_4 gallop; mild pedal edema.



Anesthetic Implications

Choose agent that maintains **coronary perfusion** and **preconditions myocardium**.

Isoflurane

decreases SVR, preserves CO, mild β-agonist effect → preferred.

Avoid sudden ↑ Desflurane

(SNS activation).

- Maintain MAP 65–80 mmHg to avoid ischemia.
- Watch for **"coronary steal"** at high Iso concentrations; keep < 1 MAC.
- Sevo acceptable alternative for induction.

Key Learning

MAC-BAR, preconditioning, coronary steal, Isoflurane hemodynamic balance.