

In vitro experiment on animal heart using Langendorff apparatus

(Pre- and post-test)

1. With which equipment, heart reservoir is connected with 3/8" tubing?
 - a) Blood reservoir
 - b) Heater/oxygenator
 - c) Centrifugal pump
 - d) Hemostatic valve
2. Why washing of blood with normal is recommended before using in this experiment?
 - a) To remove excess electrolyte
 - b) To remove lysed cellular materials
 - c) To remove red blood cell
 - d) All the above
3. Which of the following hematocrit concentration is recommended for using in Langendorff apparatus?
 - a) 20-25%
 - b) 30-35%
 - c) 40-45%
 - d) 50-55%
4. What should be the initial calcium ion concentration in the blood during experiment with Langendorff apparatus?
 - a) 0.3-0.5 mmol/L
 - b) 0.5-0.7 mmol/L
 - c) 0.7-0.9 mmol/L
 - d) 0.9-0.11 mmol/L
5. What parameters do you need to check during this experiment?
 - a) Blood pH
 - b) Blood electrolyte concentration
 - c) Temperature
 - d) Clotting factor
6. How often do you have to take blood sample to check physiologic parameter?

- a) Every 5 minute interval
- b) Every 10 minute interval
- c) Every 15 minute interval
- d) Every 20 minute interval

7. What amount of ionic calcium do you have to add frequently in the blood during the experiment?

- a) 1 mmol
- b) 2 mmol
- c) 3 mmol
- d) 4 mmol

8. How will you insert the pressure transducer?

- a) Through hemostasis valve into the aorta
- b) Through hemostasis valve into the atrium
- c) Through hemostasis valve into the ventricle
- d) Through hemostasis valve into the septum

9. Temperature of warming unit should be increased until intramyocardial temperature is measured at 37° C. T/F

10. Pressure-volume conductance catheter is inserted in to the left ventricle through apical incision. T/F