Chapter 10
SUMMARY AND CONCLUSION
1. Cardiovesicular and cardiorenal reflexes have been studied in cats by stimulating the cardiac receptors with application of nicotine on the epicardial surface and also by producing ischaemia by occluding the left anterior descending coronary artery (LAD).

2. a. LAD occlusion or epicardial nicotine application caused biphasic effects on bladder (vesicular) movement having initial large contraction followed by inhibition of bladder movement.

b. LAD occlusion or epicardial nicotine application also caused biphasic change in urine flow with an initial antidiuretic response followed by diuretic response.

3. Changes in urine flow is independent of changes in vesicular motility following excitation of the cardiac receptors.

4. Changes in vesicular motility and also in urine flow are presumably due to excitation of ventricular receptors as because such effects are abolished by application of lignocaine locally on the ventricular surface.

5. Afferent pathways for the initial contraction of the vesicular reflex induced by LAD occlusion or nicotine application are presumably both cardiac vagus and sympathetic while the inhibitory phase of the vesicular contraction is lying in the cardiac sympathetic.

6. Afferent pathways for cardiorenal reflexes induced by LAD occlusion or epicardial application of nicotine are lying both in the cardiac vagus and cardiac sympathetic. However, the initial antidiuretic response is presumably lying in the cardiac vagus.

7. Efferent pathways for the cardiovesicular reflex is presumably lying in the pelvic while the same pathway for the cardiorenal reflex is lying in the renal sympathetic.

8. Neurotransmitters involved in the cardiovesicular reflex induced by excitation of ventricular
receptors through both LAD occlusion or epicardial application of nicotine is adrenergic (β-adrenergic) since the initial large contraction was abolished by salbutamol (desensitising dose) and the inhibitory phase was blocked by atenolol.

9. Neurotransmitters involved in the antidiuretic phase of the cardiorenal reflex is cholinergic (muscarinic) since this phase is blocked by atropine and the diuretic phase is adrenergic as guanethidine sulphate blocked the same response.

10. In decerebrate (midcollicular) animals the initial large contraction is abolished and the inhibition remains unaltered and even prolonged. In such animals the cardiorenal reflex is unaltered.

11. Blood pressure changes induced by both LAD occlusion and nicotine application are presumably independent of cardiovesicular and cardiorenal reflexes.