chapter 6

conclusions
Conclusions

While summarising the present work following conclusions are obvious:

1. Pulmonary mechanics gets affected in all three types of cardiac disorders viz. rheumatic heart disease, ischaemic heart disease and congenital heart disease; the extent of malfunctioning of pulmonary system is a reflection of functional status of cardiac patients.

2. Amongst the respiratory parameters available for interrogation, not all follow a meaningful consistency to support the above enunciation.

3. The parameters such as FVC, FIVC, TLC, RV/TLC, FRC, FEV₁, FEF 25, FEF 50, FEF 75, PEFR, PIFR, Raw and MMF convey a pattern specific to the functional status of cardiac patients.

4. The variations in parameters RV, FEV₁%, Kst (L), t @ 50 and t @ 75 were found unrelated to the extent of severity in cardiac disorders; any future studies of such types need not consider these parameters.

5. The parameter, FEV₁% exhibited normal values in all the functional classes of cardiac patients studied; this indicates a predominance of restrictive type of respiratory disorder resulting from pulmonary congestion, edema and stiffness of lungs.

6. Obstructive types of respiratory disorders identified as decrease in FEV₁, FEF 25, FEF 50, FEF 75, PIFR, PEFR and MMF with simultaneous increase in Raw with respect to the functional status of the cardiac patients are mostly associated with compression of and/or internal obstruction in pulmonary system.
7. Cardiothoracic ratio increases all along the functional status in IHD and CHD patients. It had no such correlation in RHD patients.

8. The classification system for the assessment of functional status of cardiac patients proposed in these studies is based upon variations in physical parameters of respiratory system; the system is simple, noninvasive, safe, more objective and suffers less from self or physician imposed inactivities, psychic factors or any other subjective consideration.

9. Both ‘Morgan ELF’ and ‘Spiroshcreen, were found to be suitable machines for such an interrogation; however amongst the two – Morgan ELF seemed ideal as both the inspiratory and expiratory parameters could be measured.

10. Observations reported in these studies could detect chances of heart failure at an earlier stage. Further, the results could assess the response to the therapy, help prognosis and finally rehabilitation of the cardiac patients.