SUMMARY
The present study was undertaken to find out the effect of hathyogic practices, i.e. asanas, pranayama and asanas & pranayama together, on the biochemical parameters of the non-insulin dependent diabetic subjects. For this, the study was divided into three parts and the blood and urine samples were analysed at different intervals of the study. The significant findings of the study are summarized as:

1. The most important observation of the study was a significant decrease in the urine and blood glucose by almost all the patients in all the three parts of the study. However, the comparative studies indicate that the combined practice of asanas and pranayama together seems to be the most beneficial for the patients in decreasing their urine and blood glucose level.

2. An increase in the serum insulin level was observed in the diabetic patients during part I study; however, the insulin levels were found to be reduced during part II and part III study.

3. Hathyogic practices helped in decreasing/stopping the oral drug intake alongwith significant decrease in blood glucose level by the diabetic patients in all
the three parts of the study.

4. Hathyogic practices have been shown to have an impressive positive effect on the serum lipid and lipoprotein profile. Reduction in the plasma cholesterol, triglyceride, LDL, VLDL and increase in HDL levels have been observed by the patients after yoga training in all the three parts of the study. The comparative studies indicate that the combined practice of asanas and pranayama seems to be the most beneficial in decreasing the serum lipid levels and this effect during the part III study can be attributed to pranayamic exercises.

5. Hathyogic practices have been proved to be beneficial in decreasing the body weight of the overweight diabetic patients and managing the weight of the NIDD subjects in all the three parts of the study.

6. The short term study on the effect of diet sequence clearly infers that sucking of the minute quantity of sweet articles at the start of the food intake may be beneficial for the diabetic subjects by helping in the early secretion of insulin.
CONCLUSIONS

* All types of hathyogic practices are beneficial for non-insulin dependent diabetic subjects.

* The combined practice of asanas and pranayama seems to be the most effective in controlling the diabetic status of the patients.

* All the hathyogic practices affect, directly or indirectly, the breathing mechanism of the patients to produce the beneficial effects.

Thus, this study confirms the useful role of selected hathyogic practices in the control of diabetes mellitus. Fasting and P.P. urine and blood glucose levels decreased significantly. The patients developed a sense of well being along with lowering of the dosage of drugs. The possible benefits were not limited to improvements in insulin and glucose levels but also extended to reduction of important risk factor for atherosclerosis. Obesity is an independent risk factor for cardiovascular disease and hathyoga has proved to be beneficial in causing the weight loss in overweight diabetics. So, our data support the conclusion that regular yogic exercise should/can be recommended as a part of daily management for diabetics. This should be done in addition to - and not in replacement of - diet control and if necessary, pharmacologic treatment.