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**Background and Aim:**

Hypertension is one of the common medical problems encountered in 10% of all pregnancies. Pre-eclampsia (PE), a hypertensive disorder during pregnancy has adverse pregnancy and cardiovascular (CV) outcomes. Though anti-hypertensive drugs are used in the management of pregnancy-induced hypertension, termination of pregnancy alone offers a complete cure. Hence optimizing the health care for pregnant women is an important step to achieving sustainable development objectives, prevention and treatment of hypertensive disorders. While studies have shown the beneficial effects of yoga on high-risk pregnancies, this randomised control trial investigated the effect of slow pranayamas on heart rate variability and CV risks in pregnant women diagnosed with preeclampsia.

**Methods:**

A total of 152 pregnant women who were diagnosed with pre-eclampsia were recruited from Women and Children Hospital, AIIMS Patna and were randomized into yoga and control groups. The yoga group (n=70) received standard anti-hypertensive medication along with slow pranayamas, 2 times a day for 4 weeks between 20 to 34 weeks of gestation. The control group (n=82) received only standard anti-hypertensive medications during the same period. Blood pressure variability parameters including BRS were assessed before and after 4 weeks.

**Results:**

A significant decrease in heart rate and blood pressure was seen in the pranayama group compared to the control group. Also, Stroke volume (SV), Left Ventricular Ejection Time (LVET), Cardiac Output & BRS increased significantly in the pranayama group compared to the control group with decreased Total Peripheral Resistance.

**Conclusion:**

The four-week practice of slow pranayamas significantly improved the parasympathetic activity, and blood pressure variability parameters including BRS & reduced CV risks in preeclamptic pregnant women.

**Keywords**: Pre-eclampsia, Baroreflex sensitivity, Cardiovascular risks, Pranayamas, Yoga.