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**Objectives** To investigate the effect of therapeutic lifestyle intervention on the restored of circadian rhythm of ambulatory blood pressure.

**Methods** 200 hypertensive patients were randomly divided into two groups: therapeutic lifestyle intervention group and control group. All subjects were given drug treatments, strict therapeutic lifestyle intervention (light diet, taking exercise, et al) were given to the intervention group, while the conventional lifestyle intervention were given to the control group. 24-h ambulatory blood pressure monitoring (ABPM) was performed before and after 1 year treatment.

**Results** The clinical index and 24-h ambulatory blood pressure monitoring index were no significant differences between the two groups before the lifestyle intervention. With one year treatment, the decreasing level of 24 h, nighttime systolic blood pressure (24hSBP and nSBP) in the intervention group were significantly higher compared to the control group ((13.5±5.7)% and (9.2±7.5)% to (10.0±5.6)% and (4.4±7.1)%,  $p<0.05$ ); the decreasing level of 24 h, nighttime diastolic blood pressure (24hDBP and nDBP) in the intervention group were significantly higher compared to the control group [(12.1±4.9)% and (8.4±8.5)% to (9.2±6.2)% and (3.8±8.5)%,  $p<0.05$ ). Blood pressure variability and the proportion of dipper hypertensive were no significant differences between the two groups before treatment. With 1 year treatment, outcome rate of dipper blood pressure in the intervention group was significantly higher compared to the control group (26% to 10%,  $p<0.05$ ).

**Conclusions** With therapeutic lifestyle interventions, 24hSBP, 24hDBP, nSBP, nDBP had been significantly improved. Therapeutic lifestyle interventions may have beneficial effects on restored of circadian rhythm of ambulatory blood pressure.

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**THE EFFECT OF THERAPEUTIC LIFESTYLE INTERVENTION ON THE CIRCADIAN RHYTHM OF AMBULATORY BLOOD PRESSURE**

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