Objective: Evaluate the effects of an oral contraceptive containing 20 mcg of ethinyl estradiol (EE) plus 3 mg of drospirenone (DRSP) in mild hypertensive overweight women on BP, BMI, IR and lipid parameters. Methods: Sixty-five women with mild hypertension aged 37±5.5 years with a mean BMI of 28.90±0.78 were enrolled in the study: 40 women (case group) were evaluated before starting the OC and six months after its use. Control group (non-users of contraception) was 25 women evaluated at the same time interval. BP was measured by 24 hour Ambulatory Blood Pressure Monitoring (ABPM). Evaluated metabolic parameters were total cholesterol (TC), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), triglycerides, fasting glucose and insulin. Insulin resistance (IR) was estimated by the homeostasis model assessment online calculator (HOMA-2). Paired t test was used for statistical analysis Data are expressed by mean and standard error. Results: In case group, there were no significant changes in BMI (28.90±0.78 to 28.45±0.79 p=0.62), systolic blood pressure (SBP) and diastolic blood pressure (DBP) (128.22±1.66 to 124.11±1.45 p=0.197 and 82.51±1.56 to 81.56±1.51 p=0.495). There was significant decrease on nighttime SBP measures (114.5±1.79 to 110.24±1.77 p=0.032) and a tendency of reduction of nocturnal DBP (68.74±1.56 to 65.34±1.79 p=0.062). There were no significant changes in TC (189.6±7.55 to 190.6±8.79 p=0.879), LDL (108.14±9.89 to 102.05±9.82 p=0.486), HDL (51.12±2.25 to 58.29±2.35 p=0.06), triglycerides (140±18 to 160±15.45 p=0.244) and IR (3.07±0.072 to 3.17±0.070). There were no significant changes in control group. Conclusion: In overweight women with mild hypertension, the use of an oral contraceptive containing 20 mcg EE plus 3mg of DRSP did not cause any rise in BP, BMI, IR, or on lipid profile.