Dysglycemia is very common in treated hypertensive patients. Glycemic abnormalities are frequently coexisting in hypertensive patients. Dysglycemia including impaired fasting glucose (IFG), impaired glucose tolerance (IGT), and diabetes should be identified before antihypertensive therapy and during follow-up. We enrolled a total of 770 hypertensive patients (mean age, 57.9±10.4 years) on stable antihypertensive medications, who have no prior history of diabetes, atherosclerotic cardiovascular disease, heart failure, and renal failure. Fasting plasma lipids, glucose (FG), and 2h plasma glucose (2hG) after ingestion of a 75g glucose load were measured. Prevalence of dysglycemia was 72.3%: isolated IFG 30%, IGT 7.1%, IFG + IGT 20.1%, and incident diabetes 15.1% (6.0% by FG; 9.1% by 2hG). By univariate analysis, incident diabetes was associated with abdominal obesity, a high FG level, a low HDL cholesterol level, a high triglyceride level, metabolic syndrome, use of beta-blockers and thiazide diuretics. By multivariate analysis in 724 patients with FG 126 mg/dL, abdominal obesity (OR 2.55, 95% CI 1.08-6.02, p=0.032) and FG ≥110 mg/dL (OR 4.45, 95% CI 2.40-8.26, p<0.001) were the independent predictors of diabetes, which was identified by a 75g glucose load. Among these patients with FG 126 mg/dL, prevalence of incident diabetes was markedly increased when FG ≥110 mg/dL with abdominal obesity was present (29.3 vs 4.0%, reference: FG 110 mg/dL plus no abdominal obesity, OR 9.95, 95% CI 5.18-19.12, p<0.001). Dysglycemia is very common in treated hypertensive patients. Incident diabetes is not infrequent during follow-up. Work-up for incident diabetes should be considered when moderate fasting hyperglycemia (FG 110-125 mg/dL) with abdominal obesity is present.