

# Quiz 01

*February 3, 2020*

The following comes from the abstract of a paper in the New England Journal of Medicine by Ojji et al. Comparison of Dual Therapies for Lowering Blood Pressure in Black Africans. N Engl J Med 2019; 380:2429-2439

**BACKGROUND** The prevalence of hypertension among black African patients is high, and these patients usually need two or more medications for blood-pressure control. However, the most effective two-drug combination that is currently available for blood-pressure control in these patients has not been established.

**METHODS** In this randomized, single-blind, three-group trial conducted in six countries in sub-Saharan Africa, we randomly assigned 728 black patients with uncontrolled hypertension ( $\geq 140/90$  mm Hg while the patient was not being treated or was taking only one antihypertensive drug) to receive a daily regimen of 5 mg of amlodipine plus 12.5 mg of hydrochlorothiazide, 5 mg of amlodipine plus 4 mg of perindopril, or 4 mg of perindopril plus 12.5 mg of hydrochlorothiazide for 2 months. Doses were then doubled (10 and 25 mg, 10 and 8 mg, and 8 and 25 mg, respectively) for an additional 4 months. The primary end point was the change in the 24-hour ambulatory systolic blood pressure between baseline and 6 months.

<b>Table 1. Demographic and Clinical Characteristics of the Patients at Baseline.*</b>			
<b>Characteristic</b>	<b>Amlodipine– HCTZ (N = 216)</b>	<b>Amlodipine– Perindopril (N = 205)</b>	<b>Perindopril– HCTZ (N = 200)</b>
Sex — no. (%)			
Male	80 (37.0)	77 (37.6)	71 (35.5)
Female	136 (63.0)	128 (62.4)	129 (64.5)
Age			
Mean — yr	51.2±10.9	50.9±10.8	50.9±10.2
Distribution — no. (%)			
≥55 yr	84 (38.9)	74 (36.1)	72 (36.0)
<55 yr	132 (61.1)	131 (63.9)	128 (64.0)
Body-mass index†	28.7±5.5	28.5±5.7	27.8±6.1
Blood pressure — mm Hg			
Office			
Systolic	158.0±11.0	158.0±11.1	158.3±13.0
Diastolic	98.3±10.4	97.3±10.6	97.2±10.0
Ambulatory			
Systolic	145.6±14.6	147.6±16.5	146.0±15.7
Diastolic	88.3±10.5	90.0±11.9	88.3±10.4
Pulse — beats/min	83.3±13.8	80.1±13.7	81.8±14.0
Diabetes mellitus — no. (%)	5 (2.3)	12 (5.9)	18 (9.0)
Previous antihypertensive therapy — no. (%)			
Calcium-channel blocker	34 (15.7)	39 (19.0)	34 (17.0)
Diuretic	22 (10.2)	22 (10.7)	18 (9.0)
ACE inhibitor	5 (2.3)	9 (4.4)	8 (4.0)
ARB	4 (1.9)	2 (1.0)	6 (3.0)
Beta-blocker	1 (0.5)	1 (0.5)	1 (0.5)

\* Plus-minus values are means ±SD. ACE denotes angiotensin-converting enzyme, ARB angiotensin-receptor blocker, and HCTZ hydrochlorothiazide.

† The body-mass index is the weight in kilograms divided by the square of the height in meters.