Background: In Latin America the association between ethnic groups and arterial hypertension has not been explored. The impact of this knowledge will bring new opportunities to reduce ethnic differences, consequently, morbidity and expenses will reduce. Due to this, the objective was to know this association in Peru.

Methods: Cross-sectional analysis of the Encuesta Demográfica y de Salud Familiar (2017). Sampling was random and two-stage. We performed crude binomial regression to know association between variables and hypertension. We performed two regression models for the ethnicity-hypertension association the first was adjusted for sex, age and body mass index (BMI), and the second, age, sex, and was stratified by BMI categories (normal or underweight, overweight and obese).

Results: A total of 9,795 Peruvians who answered the question of ethnic self-identification were evaluated. The 83,39% (CI 95% 82,10-84,59%) was male. The predominant ethnic groups were half blood (53,15%; CI 95% 51,35-54,92%) and Quechuas (27,25%; CI 95% 25,74-28,80%). The prevalence of hypertension was 16,87% (CI 95% 15,54-18,28%), and of obesity, 22,21% (CI 95% 20,86-23,60%). In the bivariate analysis, we found that elderly, living in urban residence, smoking daily, overweight, obesity and diabetes were risk factors for hypertension. Moreover, male sex and living at >1500 meters over the sea level were found to be protective factors. In the first model, the whites had a significant risk association (PR 1,70; CI 95% 1,16-2,48), and the Quechuas had a significant protective association (PR 0,74; CI 95% 0,58-0,94). In the second model, Quechuas and Whites mantained its association in low weight/normal and obesity stratifications respectively.

Conclusions: BMI explained the association in most ethnic groups, however, the association in Whites and Quechuas had a degree of independence. There are ethnic differences in the hypertension of Peruvians, and more attention should be paid to risk factors, such as elderly, smoking, diabetes and obesity.