LEARNING THE ROPES: ASPECTS ON MALE VS. FEMALE SEX IN HYPERTENSION

Epidemiology and risk: Latin - American perspective

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Cardiovascular disease (CVD) is the major cause of death in Latin American countries (LATAM) and hypertension is the risk factor with the higher population attributable fraction (PAF) ^[1]. The Prospective Urban Rural Epidemiology (PURE) study has collected extensive data on the prevalence, awareness, treatment and control of hypertension in rural and urban communities in Argentina, Brazil, Chile Colombia, Peru and Uruguay ^[2]. The mean age of the study population was 51.7 (9.7) years, 60% were female, and 32.1% belonged to rural areas. The prevalence of hypertension was higher in men (50.5%) than in women (44 %) but females ($P < 0.001$) were more likely to be aware, treated and controlled when compared with males (Figure 1). Of big concern is the very low percentage of hypertension control particularly in men, in whom only 14% of hypertensives have blood pressure values lower than 140/90 mmHg, while in women was 27%.

Similar data has been previously reported in Colombia showing that being male, younger, a rural resident and having a low level of education was associated with significant lower hypertension awareness, treatment and control ^[3].

In addition to hypertension, the LATAM PURE study observed that other cardiovascular risk factors as alcohol intake, smoking, low physical activity, abdominal obesity, and diabetes also were more frequent in men than in women, situation that are related with the higher incidence of CVD in men compared to women. Interestingly, while CVD was the most common cause of death in men, cancer was the most common cause of death in women ^[4]. Leading risk factors for CVD in women were hypertension, abdominal obesity, tobacco use, diabetes, and poor diet, while in men were hypertension, tobacco use, abdominal obesity, low grip strength, and

low education level. In women, leading risk factors for death were low education level, hypertension, tobacco, abdominal obesity, and diabetes. In men, tobacco use, hypertension, low education level, abdominal obesity and low grip strength were the leading risk factors.

These findings suggest that more than half of CVD cases in both sex in LATAM could be averted by focusing on modifying metabolic risk factors and policies to reduce tobacco use. Also, our results confirm the importance of population level strategies to improve the awareness, treatment, and control of hypertension. Improving hypertension management, particularly in youth male, will require understanding context-specific barriers that limit care and system-level changes directed at overcoming these barriers. Socioeconomic disparities are related to differences in behavior and lifestyle habits such as drinking and smoking. Finally, educational levels and very low income are associated with lower social support and a more limited access to healthcare access, leading to lower detection and treatment of hypertension and associated risk factors. The use of combined therapy could be significantly influenced by income. It is well known that the availability and affordability of medicines impact in the effective BP control. These data highlight the importance of developing appropriate policies aimed at eliminating social and economic disparities, which reduce the access to the management and control of hypertension in LATAM. Therefore, any proposed program to improve the detection, treatment and control of hypertension must include the participation of different actors of society and not only the health system ^[5].

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Figure 1. Multivariable adjusted prevalence of awareness, treatment and control of hypertension by sex in Latin American countries. All subgroup P values less than 0.001. Modified of Lamelas P, et al [2].

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