

Letter to the Editor

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In a recent article, Kringeland *et al.*¹ presents new knowledge on the importance of stage 1 hypertension and risk of later acute coronary syndrome (ACS). In the abstract, the authors conclude: 'Among subjects in their early 40s, stage 1 hypertension was a stronger risk factor for ACS during midlife in women than in men'. This conclusion refers to a statistically significant adjusted hazard ratio (HR) for ACS of 2.18 among women with stage 1 hypertension vs. normotensive women, as compared to a corresponding non-significant HR of 1.30 for men. The interaction between sex and hypertension was statistically significant, in other words, the association between stage 1 hypertension and ACS was significantly

different between women and men. Notably, there was a highly significant sex difference in the proportion of subjects experiencing an ACS during follow-up; 1.4% of the women and 5.7% of the men. This inspired us to explore the absolute contribution of hypertension to the risk for ACS in both sexes.

Based on the numbers provided in *Table 2* of the manuscript, we calculated the risk ratios (RRs) and absolute risk differences (RDs) between normotensive and those with stage 1 hypertension. The unadjusted RR are similar to the crude HRs reported in the manuscript and higher in women than in men. The RD, however, is 1.1% ($P < 0.001$) in women and 1.6% ($P = 0.018$) in men (*Table 1*), with a

Table 1 Stage 1 hypertension vs. normotension—women and men

Women	Stage 1 hypertension	Normotension	Total
ACS	31	32	63
No-ACS	1573	3862	5435
Total	1604	3894	5498
Risk	0.019	0.008	0.011
	Point estimates	95% CI	
Risk difference	0.011	0.003, 0.018	
Risk ratio	2.35	1.44, 3.84	
		$P < 0.001$	
Men	Stage 1 hypertension	Normotension	Total
ACS	123	87	210
No-ACS	1956	1942	3898
Total	2079	2029	4108
Risk	0.059	0.043	0.051
	Point estimates	95% CI	
Risk difference	0.016	0.003, 0.030	
Risk ratio	1.38	1.06, 1.80	
		$P = 0.018$	

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similar trend for stage 2 hypertension. Therefore, when analysing the data on an additive scale, the risk of ACS attributed to hypertension is somewhat lower in women than in men. We agree that it is important to focus on hypertension in middle-aged women as described in the manuscript. However, reporting the results on both a multiplicative scale and an additive scale would give a more complete picture.

Conflict of interest: none declared.

Reference

1. Kringeland E, Tell GS, Midtbø H, Igland J, Haugsgjerd TR, Gerds E. Stage 1 hypertension, sex, and acute coronary syndromes during midlife: the Hordaland Health Study. *Eur J Prev Cardiol* 2021.