Different clinical findings at the chest pain unit: do women spend more time seeking emergency room?

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Background: Male gender is a consolidated cardiovascular risk factor in medical literature. However, studies show most often unfavorable outcomes in women as well as underutilization of established therapeutic strategies. The time between the onset of chest pain (CP) and hospital admission (delta T) can affect therapeutic efficacy in acute coronary syndromes (ACS). This paradigm is controversial and its impact on the stratification of the probability of ACS in the emergency room is not clear.
Purpose: To compare the delta T between genders in patients with clinical suspicions of ACS and different clinical presentations.

Methods: This prospective study included 878 patients admitted to the chest pain unit (CPU) with clinical suspicion of ACS. The delta T was estimated by the interval between the onset of symptoms and admission at the CPU. Clinical presentation was classified as typical CP (definitely angina and probably angina) and atypical CP (probably not angina and definitely not angina). Patients underwent serial assessment of EKG and troponin I on admission and 6 hours later. The diagnosis of ACS was performed by ischemia detection in stress tests or in the presence of significant obstruction in coronary angiography. Statistical analysis was performed using student t-test and chi square.

Results: Mean age was higher among women (64.4+16.4y vs 62+16.1y; p=0.04). The ACS occurrence was higher in males (26.9% vs. 12.5%; p<0.001). Atypical presentations were more common in women (62.3% vs 48.7%; p=0.003). There was no difference between the median delta T of both genders for the total population (men vs women=120min vs 115min; p=0.16), with typical DT (men vs women=120min vs 91min; p=0.33), or SCA (men vs women=90min vs 96min; p=0.36).

Conclusion: Women were admitted to CPU with more atypical symptoms and an older age. The higher incidence of ACS in men reinforces the risk in this group. There was no difference in delta T between genders, even in individuals with ACS.