Abstract: **P810**

Body mass index and gender-specific clinical outcome measures of congestive heart failure with reduced ejection fraction: a Middle Eastern population study

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Background: Low body mass index (BMI) has been linked with congestive heart failure mortality. However, gender-specific BMI-related clinical outcome measures are not well defined. **Aim:** We examined the correlation between BMI gender variability and clinical mortality, cerebrovascular accident (CVA), transient ischaemic attack (TIA), composite outcome of myocardial infarction (MI), unexplained syncope, infection and bleeding outcome measures of heart failure in patients with reduced ejection fraction (HFrEF). **Methods:** A group of 166 consecutive HFrEF patients, 37 females and 129 males, were enrolled in a prospective HFrEF single-centre registry from December 2014 to December 2015. **Results:** Males with lower BMI had higher composite MI/CVA/mortality, (42% vs. 25%, P = 0.05) for BMI of 25.9 ± 5.3 vs. 29.8 ± 7.2 kg/m2, P = 0.08. They also showed higher rates of CVA/TIA/unexplained syncope than the high-BMI males (23% vs. 4.1%, P = 0.01 for BMI of 23.9 ± 5.4 vs. 28.4 ± 6.1 kg/m2, P = 0.018). However, length of stay (LOS) at the hospital was shorter for low-BMI females (3.6 ± 2.4 vs. 9.7 ± 8.15, P = 0.024 for BMI 29.7 ± 6.2 vs. 35.8 ± 7.2 kg/m2, P = 0.01). Low-BMI females had lower rates of infection/bleeding (26% vs. 0%, p = 0.001 for BMI of 35.8 ± 7.2 vs. 27.8 ± 4.9 kg/m2). Conclusion: Among the examined HFrEF patients, low BMI in males was associated with high incidence of MI/CVA/mortality and composite rates of CVA/TIA/unexplained syncope. Low BMI in females was associated with low all-cause infection/bleeding rate and short LOS.