

Gender specific clinical indicators of congestive heart failure in the middle east: Data from a single centre heart failure registry

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On behalf: Makkah Heart Failure group

Topic(s):

Chronic heart failure (management)

Citation:

European Journal of Heart Failure Abstracts Supplement (2016) 18 (Supplement 1), 337

Background/Introduction: Clinical outcome measures are the mainstay of cardiology trials. Congestive heart failure (CHF) measures have traditionally focused on average length of stay (LOS) and rehospitalisation and mortality rates. **Purpose:** We aimed to identify the significant factors of gender variability of CHF patients with a reduced ejection fraction (HFrEF). **Methods:** We performed gender comparison of statistically relevant variables using prospectively collected data of HFrEF patients hospitalised over a 12-month period. **Results:** Of 174 consecutive patients, 135 (78%) were males and 39 (22%) were females. Compared to males, females had a statistically significant older age (64 vs. 58; $P < 0.001$), higher ejection fraction (EF) (28% vs. 23%; $P = 0.023$) and no history of active smoking (0% vs. 16%; $P = 0.005$) and less use of beta blockers (76% vs. 93%; $P = 0.006$), digitalis (2% vs. 12%; $P = 0.009$) and mineralocorticoid receptor antagonist drugs (35% vs. 55%; $P = 0.025$). After one year, both males and females had similar all-cause and heart failure hospitalisation and re-hospitalisation rates. Females showed no differences in in-house mortality, combined in-house mortality/30-day re-hospitalisation rates and composite myocardial infarction/stroke rates, compared to males. Males were more likely to require defibrillator device implantation (34% vs. 12%; $P = 0.008$). **Conclusion:** Our findings showed that female HFrEF patients had similar LOS; in-house mortality, hospitalisation and rehospitalisation rates; less utilisation for implantable devices.

Baseline characteristics	Males (n = 135), mean, (SD)	Females (n = 39), mean, (SD)	P-value	95% CI for difference
Age	58 (13.5)	54 (9)	< 0.001	(-10.4, -3.03)
EF	23 (9.2)	28.2 (12.8)	0.02	(-9.61, -0.75)
Smoking	16%	0%	0.01	(0.09, 0.21)
Beta blockers upon discharge	93%	76%	0.01	(0.025, 0.30)
MRAs upon discharge	55%	35%	0.03	(0.024, 0.36)
Digitalis upon discharge	12%	2%	0.01	(0.02, 0.17)
Warfarin upon discharge	25%	10%	0.02	(0.02, 0.26)
CVA or TIA rate	21%	5%	< 0.001	(0.06, 0.26)
Annual Device implantation rate	34%	12%	0.01	(0.08, 0.35)

CVA, cerebrovascular accident; TIA, transient ischemic attack; MRAs, mineralocorticoid receptor antagonist drugs

