

The association between percutaneous coronary intervention and abdominal or thoracic drainage of congestive heart failure with reduced ejection fraction patients

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Background/Introduction: The correlation between percutaneous coronary intervention (PCI) and abdominal ascites or pleural effusion drainage of heart failure with reduced ejection fraction (HFrEF) patients, is not well studied. **Purpose:** We aimed to identify the association between PCI and abdominal ascites o thoracic drainage incidence of HFrEF patients enrolled in a Middle Eastern single centre heart failure registry. **Methods:** We performed subgroup analysis of prospectively collected data of 174 consecutive HFrEF patients hospitalized over 12-month period. **Results:** Ultrasound guided drainage was performed more frequently in ischemic compared to non-ischemic cardiomyopathy patients (8% vs. 0.9%; P=0.024). Among the 23 (13%) PCI patients, there was no need for abdominal or thoracic drainage, compared to 151 (67%) non-PCI patients (P = <0.0001). Females had higher statistically insignificant drainage incidence compared to males (10% vs. 4%; P = 0.261). **Conclusion:** PCI is associated with significant reduction of drainage requirement of HFrEF patients. Ischemic cardiomyopathy, female gender and non-PCI feasible subgroups were at high risk for abdominal or thoracic drainage requirement.

Gender characteristics	Males (n = 135)	Females (n = 39)	P value	CI
Age	58.1 (13.50)	64.8 (9.04)	< 0.001	(-10.40, -3.03)
EF	23 (9.15)	28.2 (12.85)	0.023	(-9.61, -0.75)
Drainage procedure (n = 10)	4% (n =6)	10% (n = 4)	0.261	(-0.15, 0.043)
Ischemic etiology				
Age	54.8 (14.9)	62.6 (10.5)	0.01	(-11.97, -3.70)
EF	21.5 (9.93)	25.9 (10.2)	0.006	(-7.42, -1.24)
Drainage procedure (n = 10)	0.9% (n = 1)	8% (n = 9)	0.024	(-0.12, -0.009)
PCI				
Age	59.3 (13.3)	61.7 (9.71)	0.292	(-7.11, 2.20)
EF	23.4 (10.3)	29.2 (9.11)	0.008	(-10.08, -1.62)
Drainage procedure (n = 10)	6.60%	0%	0.001	(0.026, 0.105)

EF, ejection fraction; PCI, percutaneous coronary intervention. Data are mean (SD) unless noted otherwise.