



Safety And Practices During Adenosine Stress Cardiac Magnetic Resonance In COPD: A 3-year Experience From A Tertiary Referral Centre.



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Introduction and Rational

COPD is a multi-system disorder with significant cardiac morbidity and mortality, much of which is undiagnosed¹.

An increasing awareness of this may prompt further referrals to exclude coronary artery disease.

Increasingly Cardiovascular Magnetic Resonance (CMR) adenosine perfusion imaging (PI) is being used to assess ischaemic heart disease.

Aim

To look at patterns of referral, safety and practices of CMR PI in COPD.

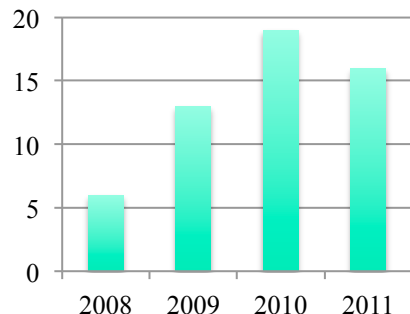
Method

54 consecutive COPD patients who underwent CMR between 2008-2011 were identified from the hospital imaging registry and a retrospective record review performed.

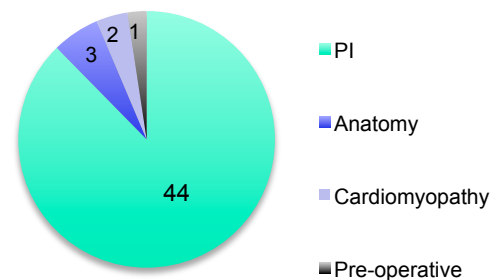
Demographics

AGE (years)	67.0±8.1
Males: Females	41:13
FEV (ml)	1299±565
FEV%	47.5±19.7
FVC (ml)	2409±925
FVC%	68.7±19.9
FEV/FVC	54.9±12.7

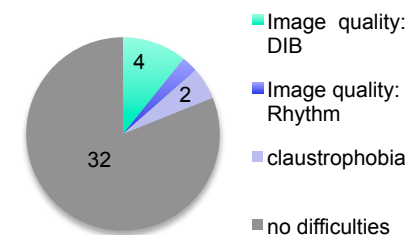
Number Of Referrals



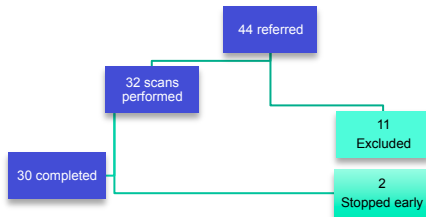
Reason for Referral



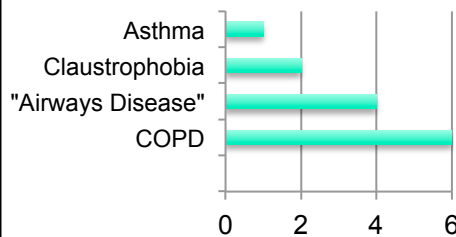
Difficulties during stress



Outcomes of Referral



Reasons given for not proceeding with PI



Outcomes of Referral

- Only 8/14 had lung function available at the time of the scan
- Comparing PFTs subsequently (31/44):

	Proceeding To Perfusion Imaging		
	YES	NO	P value
Age	66.7 ± 8.7	67.9 ± 7.0	0.53
FEV1%	50.3 ± 20.9	45.3 ± 6.0	0.37
FEV/ FVC	54.4 ± 12.5	56.1 ± 4.2	0.78

- 9.7 % of those referred incorrectly labeled with airflow obstruction

Conclusions

- The use of PI in COPD is increasing.
- Concerns over safety persist but appear unfounded
- Over-precaution and lack of accompanying lung function data at referral may result in suboptimal management of this high-risk group.

References:

1. IS Stone, NC Barnes, SE Petersen *Heart* 2012;98:1055-106

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