



GE HealthCare

Case Study

Imaging patient with microvascular dysfunction using Flyrcado



Flyrcado™ (flurpiridaz F 18) injection

Imaging patient with microvascular dysfunction using Flyrcado



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Patient Medical History

| | |
|--------------|---|
| Gender | Male |
| Age | 74 years |
| BMI | 36.9 |
| Risk factors | Hypertension hypercholesterolemia obesity |
| History | Hypothyroidism |

Medical history of the patient

The patient has experienced daily episodes of atypical chest pain for years, occurring both postprandially and with exertion, sometimes radiating to the left arm. There was no relief of symptoms with nitro-spray use. The patient has a high cardiovascular risk profile.

Pre-diagnostics

No prior cardiac imaging has been performed.

Indication

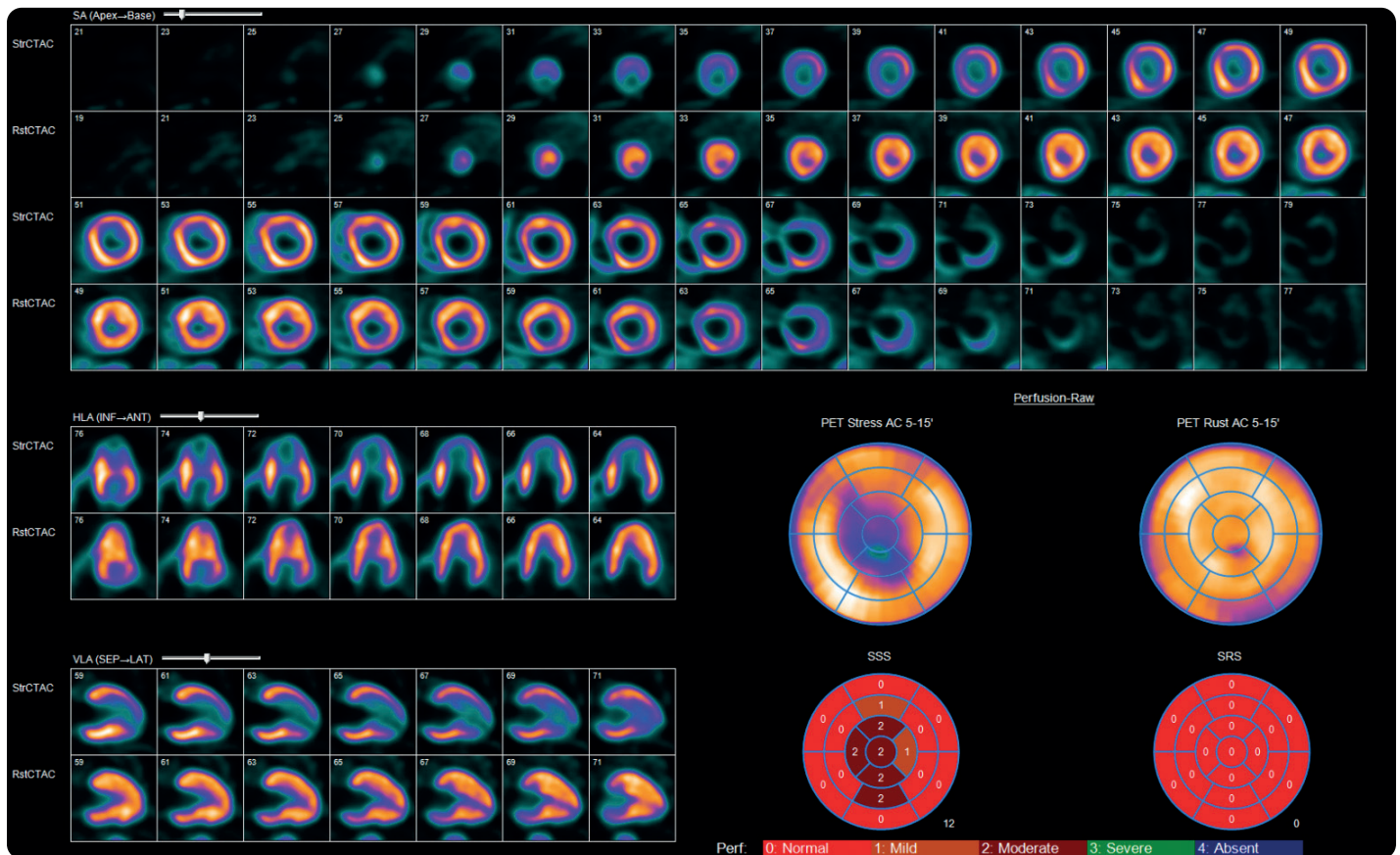
Flyrcado PET is indicated in this case to assess myocardial perfusion and detect ischemia, given the patient's chest pain and high cardiovascular risk profile.

Images and content presented here are courtesy of Dr. Arthur Braat and Dr. Marjolein Hol

Imaging

PET MPI

Rest-stress pharmacologic protocol with CT attenuation



A perfusion defect is observed predominantly in the apex and apical segments during stress, with normal radiotracer distribution at rest.

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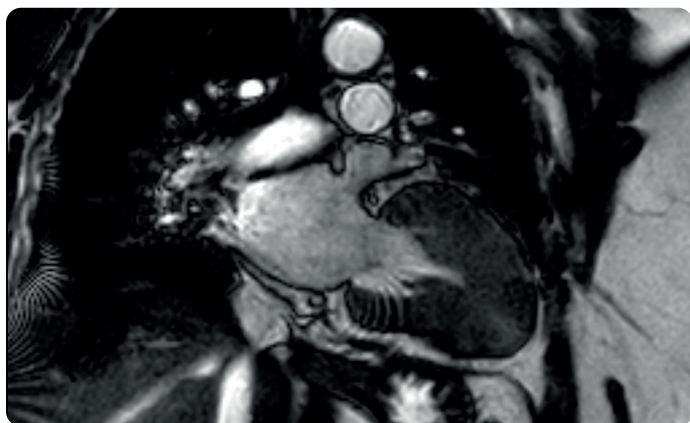
Imaging finding

Perfusion defect predominantly in the apex and apical segments during stress, with normal radiotracer distribution at rest. Findings are suggestive of ischemia.

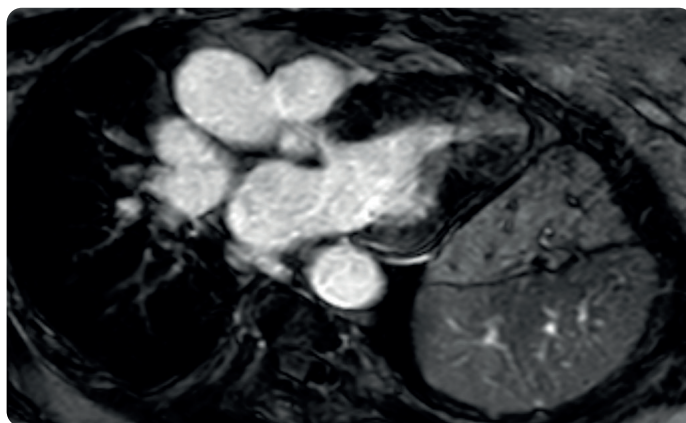
Coronary angiography revealed no evidence of coronary artery disease.

Echocardiography demonstrated wall thickening of the apical segments, prompting further evaluation with cardiac MRI.

MRI showed wall thickening and late gadolinium enhancement in the apex and apical segments.



Cine imaging demonstrates wall thickening of the apical segments and obliteration of the apical lumen during systole.



Late gadolinium enhancement is observed in the apex.

Diagnosis

Findings are consistent with microvascular dysfunction in the context of apical hypertrophic cardiomyopathy.

Therapy/Follow up

Referral to a clinical geneticist: No genetic cause was identified for apical HCM; however, a hereditary origin remains suspected. It is recommended that the patient's children undergo cardiological evaluation every five years.

This case represents an example of a patient with microvascular dysfunction in the setting of hypertrophic cardiomyopathy.

Key takeaways:

- Guiding the diagnostic pathway beyond CAD
 - Despite negative coronary angiography, findings on Flyrcado PET necessitated further investigation, leading to the diagnosis of apical HCM with microvascular dysfunction.
- Guiding therapeutic approaches for microvascular conditions
 - Flyrcado PET helped clinicians identify microvascular dysfunction by detecting perfusion abnormalities, guiding the selection of targeted therapies for conditions like coronary microvascular disease.

IMPORTANT SAFETY INFORMATION

Indications and Usage

FLYRCADO is a radioactive diagnostic drug indicated for positron emission tomography (PET) myocardial perfusion imaging (MPI) under rest or stress (pharmacologic or exercise) in adult patients with known or suspected coronary artery disease (CAD) to evaluate for myocardial ischemia and infarction.

Contraindications

None

Warnings and Precautions

- Risk associated with exercise or pharmacologic stress: Patients evaluated with exercise or pharmacologic stress may experience serious adverse reactions such as myocardial infarction, arrhythmia, hypotension, bronchoconstriction, stroke, and seizure. Perform stress testing in the setting where cardiac resuscitation equipment and trained staff are readily available. When pharmacologic stress is selected as an alternative to exercise, perform the procedure in accordance with the pharmacologic stress agent's prescribing information.
- Radiation risks: FLYRCADO contributes to a patient's overall long-term cumulative radiation exposure. Long-term cumulative radiation exposure is associated with an increased risk of cancer. Ensure safe handling to minimize radiation exposure to patients and health care providers. Advise patients to hydrate before and after administration and to void.

Adverse Reactions

- Most common adverse reactions occurring during FLYRCADO PET MPI under rest and stress (pharmacologic or exercise) (incidence \geq 2%) are dyspnea, headache, angina pectoris, chest pain, fatigue, ST segment changes, flushing, nausea, abdominal pain, dizziness, and arrhythmia.

Use in Specific Populations

Pregnancy: There are no data on use of flurpiridaz F 18 in pregnant women to evaluate for a drug-associated risk of major birth defects, miscarriage, or other adverse maternal or fetal outcomes. If considering FLYRCADO administration to a pregnant woman, inform the patient about the potential for adverse pregnancy outcomes based on the radiation dose from flurpiridaz F 18 and the gestational timing of exposure. FLYRCADO contains ethanol (a maximum daily dose of 337 mg anhydrous ethanol). If considering FLYRCADO administration to a pregnant woman, inform the patient about the potential for adverse pregnancy outcomes associated with ethanol exposure during pregnancy.

Lactation: Temporarily discontinue breastfeeding. A lactating woman should pump and discard breastmilk for at least 8 hours after FLYRCADO administration.

Pediatric Use: Safety and effectiveness of FLYRCADO in pediatric patients have not been established.

To report SUSPECTED ADVERSE REACTIONS, contact GE HealthCare at 800-654-0118 (option 2 then option 1) or by email at GPV.drugsafety@gehealthcare.com or FDA at 800-FDA-1088 or www.fda.gov/medwatch.

Flyrcado Reimbursement Support Line: 800 729 0701

Medical Affairs: 800 654 0118
(option 2, then option 3) or
medical.affairs@gehealthcare.com

Customer Service: 800 292 8514
gehealthcare.com



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