Ischaemia: Abnormal Example

Clinical Case Portal

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Abstract
Case from the Contrast Echo Box
Detection of Ischaemia

Introduction
- 55 yr old man referred for investigation of chest pain. Smoker, BP
- Dobutamine stress & myocardial contrast echocardiography performed
- Normal wall motion (and therefore by definition perfusion) at rest

Case Report
Abnormal Example - STRESS (fig 1-3)

Note:
- At peak stress, widespread perfusion defects in all apical segments, septum and anterior wall
despite only the apical septum being hypokinetic.

Freeze frames showing perfusion defects (fig 4-6)

Note:
These are still frames from 1 second after flash destruction. Note the heart rate of 122-126bpm. The yellow arrows depict clear perfusion defects in all three apical views.

**Abnormal Example - Angiogram (fig 7-8)**

Note:

- Thus by wall motion criteria, there was only 1/17 ischaemic segments (apical septum)
- But by perfusion, there were 6/17 ischaemic segments (true apical cap, apical septum, apical lateral, apical inferior, apical anterior and mid anterior)
- Coronary angiography revealed an entirely occluded LAD coronary artery, thus proving the incremental value of MCE over wall motion in this case

**Video 1:**
**Abnormal stress AP4C**

![Image](image1.png)

**Video 2:**
**Abnormal stress AP2C**

![Image](image2.png)

**Video 3:**
**Abnormal stress AP3C**

![Image](image3.png)

**Fig. 1:**
**Freeze frame AP4C**

![Image](image4.png)
Fig. 2: Freeze frame AP2C

Fig. 3: Freeze frame AP3C

Video 4: Angiogram 1

Video 5: Angiogram 2