N = 800+ Recreationally Competitive and High Performance Masters Athletes

Initial Screen:
History and Personal Symptoms Questionnaire, Physical Exam, Framingham Risk Score, Resting 12-lead ECG

Negative

No Further Testing → Follow-up (5 Years): ECG, FRS, Questionnaire

Positive

Exercise Treadmill Test

Negative: Follow-Up (5 Years): ECG, FRS, Questionnaire

Positive

Further Examinations (i.e. echo, 24 h holter, CMR, CCT/CACS)

No Cardiovascular Disease

Follow-up (5 years): ECG, FRS, Questionnaire

CVD → q1yr Follow-up

Other → Clinical Care
Masters Study – Interim Results

Framingham Risk Score

- Low risk: 60%
- Intermediate risk: 29%
- High risk: 11%

185 Patients
Masters Study – Interim Results

112 Low Risk (<10% FRS)

- ETT (35)
  - Symptoms (17)
    - Positive Family History (8)
    - Positive physical examination (6)
    - Abnormal ECG (9)
    - Age ≥65 years (3)
    - Pending ETT (7)
    - No CVD (2)
    - Query HCM (1)
    - Mild MR (1)
    - Long QT (1)
    - ST Depression - High DTS, no further testing (1)
  - Positive (11)
  - Negative (17)
    - Investigations pending (5)

- No Further Testing (77)
Masters Study – Interim Results

- 53 Intermediate Risk (10-19% FRS)
  - ETT
    - Pending ETT (11)
    - Further Tests (19)
    - Negative (23)
      - Investigations pending (4)
      - No CVD (3)

- High PVC burden + Athlete’s heart (1)
- High PVC burden + Mild systolic dysfunction (1)
  - MVP (1)
  - Paroxysmal AFib, mild MR (1)
  - Permanent AFib (1)
  - Mild diastolic dysfunction, mild-moderate MR and TR (1)
  - Mild-mod MR (1)
  - Ao sclerosis, mild MR, mild TR (1)
  - Non-obstructive CAD (2)
  - Severe CAD (1)
  - Probable old MI (1)
Masters Study – Interim Results

- 20 High Risk (>20%)
  - ETT
    - Test pending (4)
    - Further tests (16)

- Bicuspid aortic valve with severe aortic insufficiency (1)
  - High CACS (94th percentile) (1)
  - Mild Ao sclerosis, Mild-mod TR, high PVC burden (1)
  - Single vessel disease (2)
  - Double vessel disease (1)
  - Severe 3 vessel disease, moderate systolic dysfunction (1)
  - Mild-moderate aortic insufficiency (1)
  - Coronary anomaly (low risk)(1)

Investigations pending (7)
Masters Study – Interim Conclusions

• Masters athletes are not immune to elevated cardiovascular risk

• Significant CV disease exists amongst asymptomatic physically fit Masters athletes

• Systematic screening amongst Masters athletes may worthwhile in select cases