THE HEART POSITIVE STUDY

Ashok Balasubramanyam, MD
Baylor College of Medicine

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Why We Did this Study

HIV patients on ART have a high risk of developing:
- Lipid disorders
- Diabetes (2 X more than general population)
- Changes in body fat arrangement
- Heart attacks and stroke (1.5 to 2 X)

What is the reason?
- ART drugs?
- HIV itself?
- Immune reactions?

How to decrease the heart disease risk?
- ART drugs and standard lipid drugs decrease effectiveness of one another
What We Did

First, determined the key defects: too much fatty acid released from fat tissues; poor “burning” of the released fatty acids.

Then: **Heart Positive Study**
- Randomized, placebo-controlled, double-blind trial
- Compared stepwise treatments to:
  a) block fatty acid release
  b) burn the released fat
- Diet, exercise, niacin, fenofibrate
- 196 patients with high triglycerides, treated for 6 months.
- Thomas Street Clinic and Legacy
What We Found

1) All lipids improved with the combined (diet + exercise + niacin + fenofibrate) therapy (Group 5) – especially triglycerides and HDL

2) Over 60% of Group 5 normalized triglycerides, HDL and “non-HDL” cholesterol.

3) No change in glucose or insulin levels

4) Increase in muscle mass, fitness

5) Increase in fat burning capacity

6) Higher rates of liver function abnormalities in Group 5.

7) No change in HIV parameters

8) High drop-out rate
What Our Results Mean and Why this Matters

1) It is possible to decrease a major risk factor for heart disease in HIV patients without changing ART or making HIV infection worse.

2) But, it takes a multi-factorial approach: lifestyle plus two drugs

3) The treatment is generally safe

4) The lifestyle component is very important, but it is hard for the patients to comply with regular diet and exercise

5) We have to do similar studies to find the best ways to treat other components of the heart disease risk
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