

# Approaches to assessing coronary heart disease: Clinical perspective



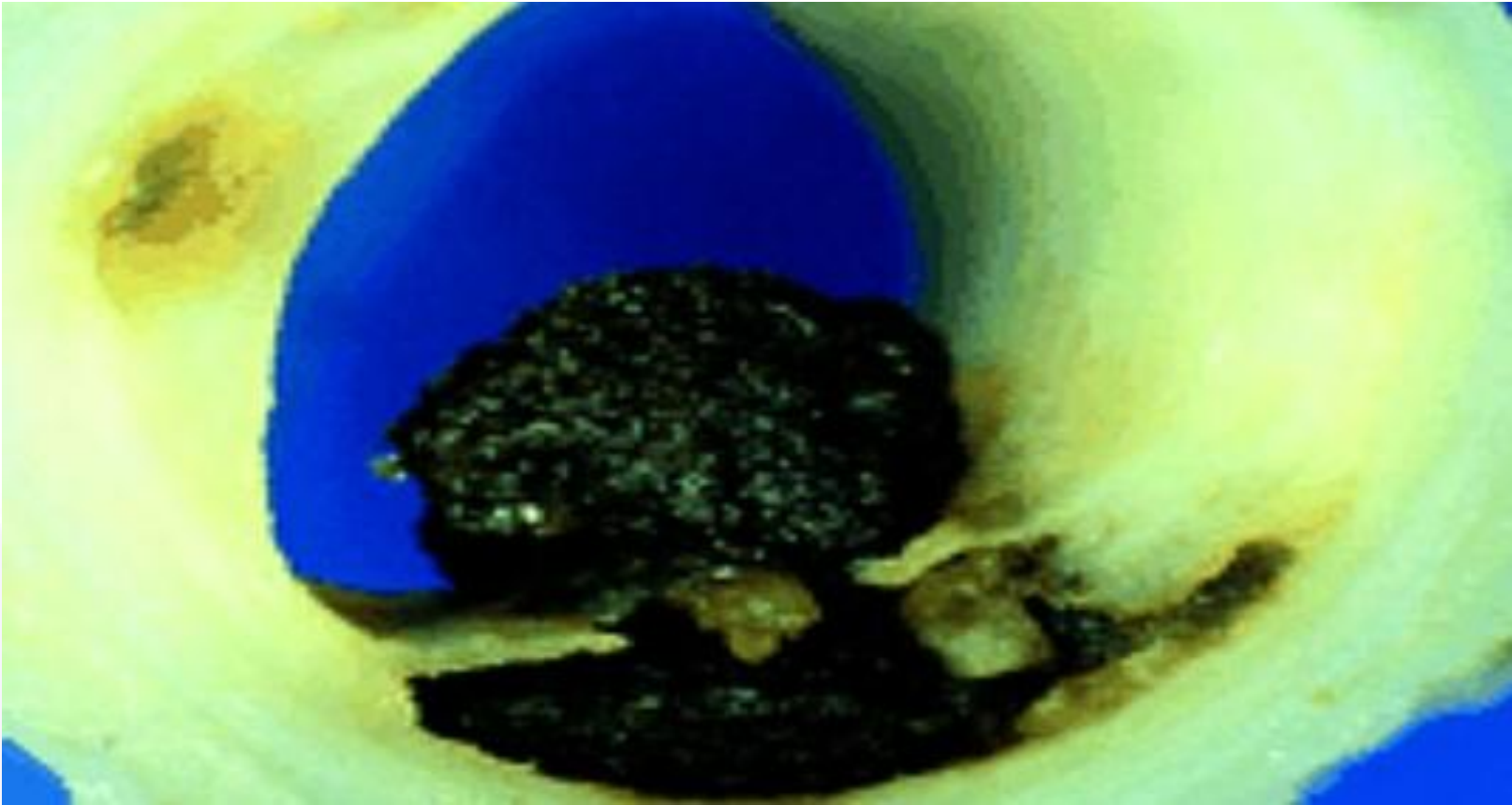
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# Plaque ulceration





# Clinical Perspective

1. Identify pts with high vs low CVR
  - Is there an HIV/ARV/pts specificity?
2. Treat pts with high CVR
  - Is there an HIV/ARV/pts specificity?

# Hypothesis of the association between vascular damage and HIV



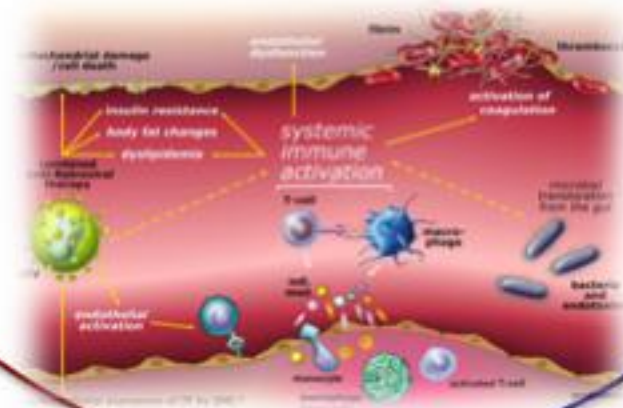
**VASCULITIS**

**INFLAMMATION**

**ATHEROMA**



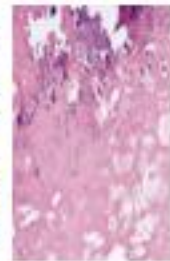
hrCRP



Flogistic infiltration, with lymphomonocytes and plasma cells



Foamy appearing macrophage cells, with some T lymphocytes



Time



Immune disregulation

Immune activation

HIV (residual) viremia  
T-cell specific CMV responses





# Clinical Perspective

## 1. Identify pts with high CVR

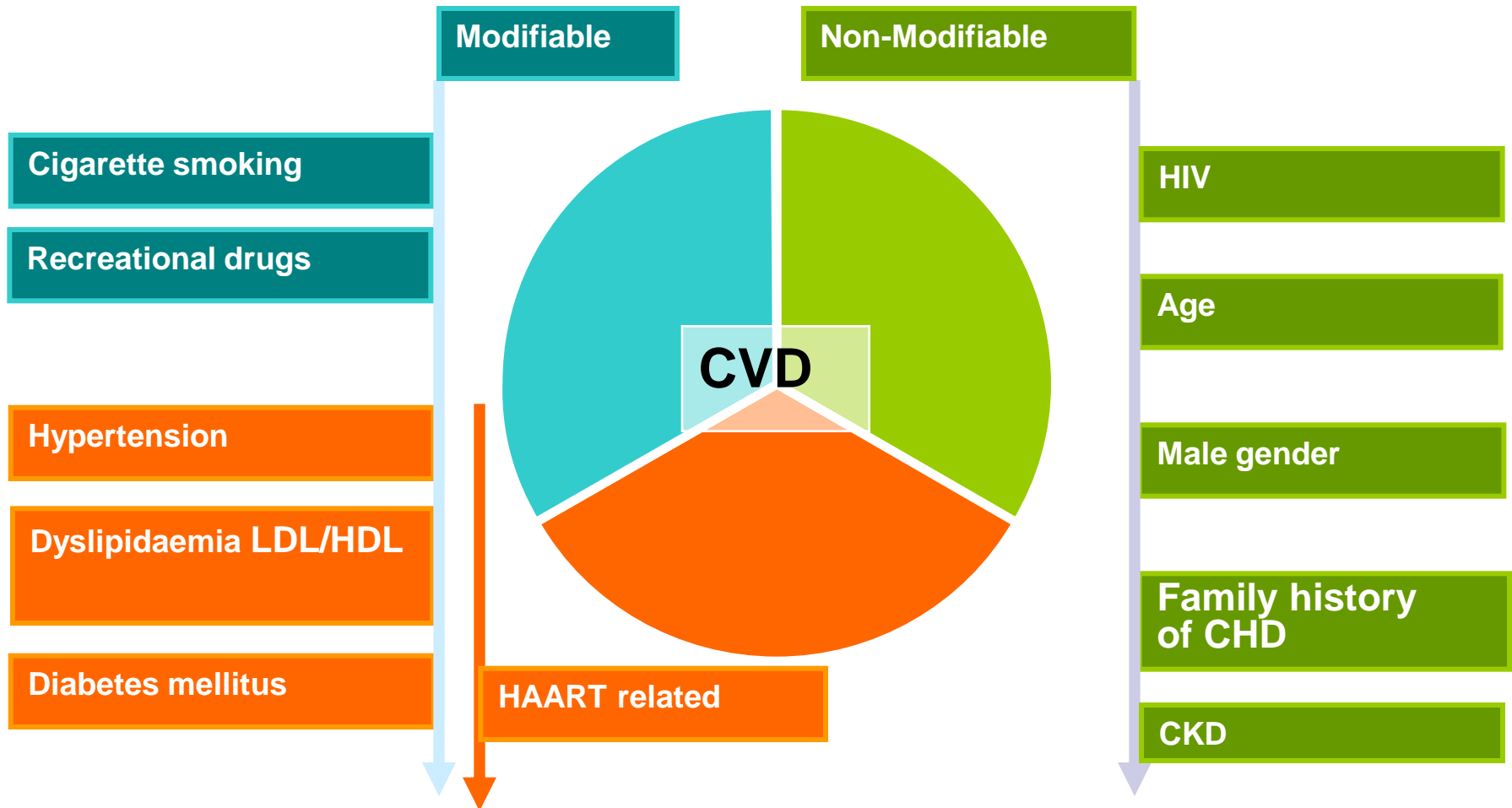
- Global cardiovascular risk:

1. Identify risk factors

2. Risk prediction through algorithms

3. Clinical assessment for patient vulnerability

# Risk factors for CVD



# Assessment of Vulnerability of HIV-infected patients

**Blood serum biomarkers of atherosclerosis & inflammation**

(Lipids & CRP, interleukin-6, Matrix MP1, etc)



Inflammation and calcification

Scar development with calcification



FMD



PWV\*



IMT



CAC\*

**Vascular pathology**

Stress test

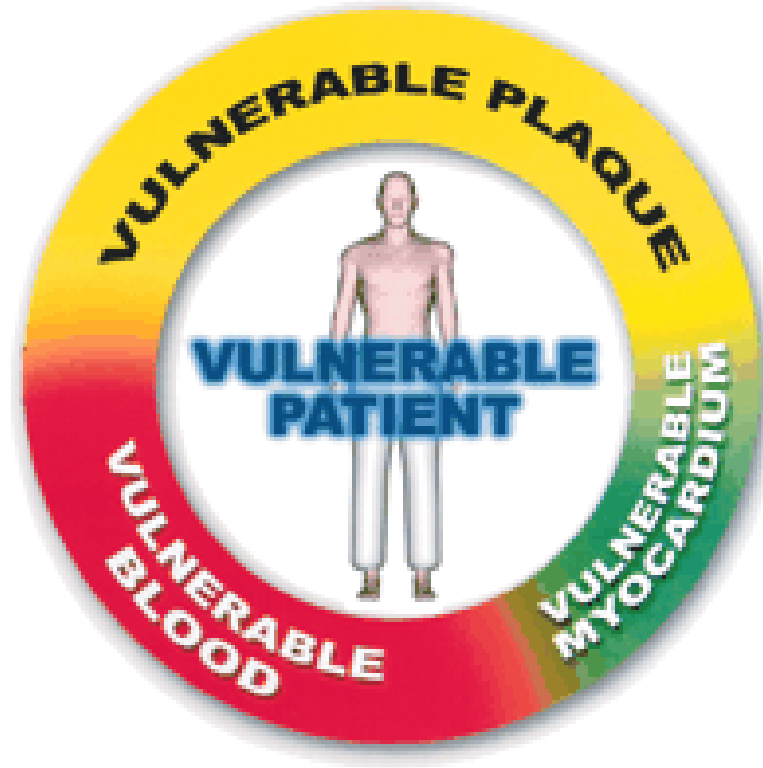
Stress imaging

Angiography

\* Independent from traditional cardiovascular risk factors

**From CV Risk Factors to Vascular Pathology**

# Moving From Risk Assessment to Vulnerability Assessment



Cardiovascular vulnerable patient = subject susceptible to an acute coronary syndrome or sudden cardiac death based on plaque, blood and/or myocardial vulnerability





# Clinical Perspective

## 2. Treat pts with high CVR

- life style intervention
- primary prevention strategies (Statine, ASA, anti-Htn)
- ARV switch
  - to correct risk factors
  - to avoid drugs associated with CVR

## Prevention of CVD

Principles: The intensity of efforts to prevent CVD depends on the underlying risk of CVD, which can be estimated. The preventive efforts are diverse in nature and require involvement of a relevant specialists, in particular if the risk of CVD is high and always in patients with a history of CVD.

