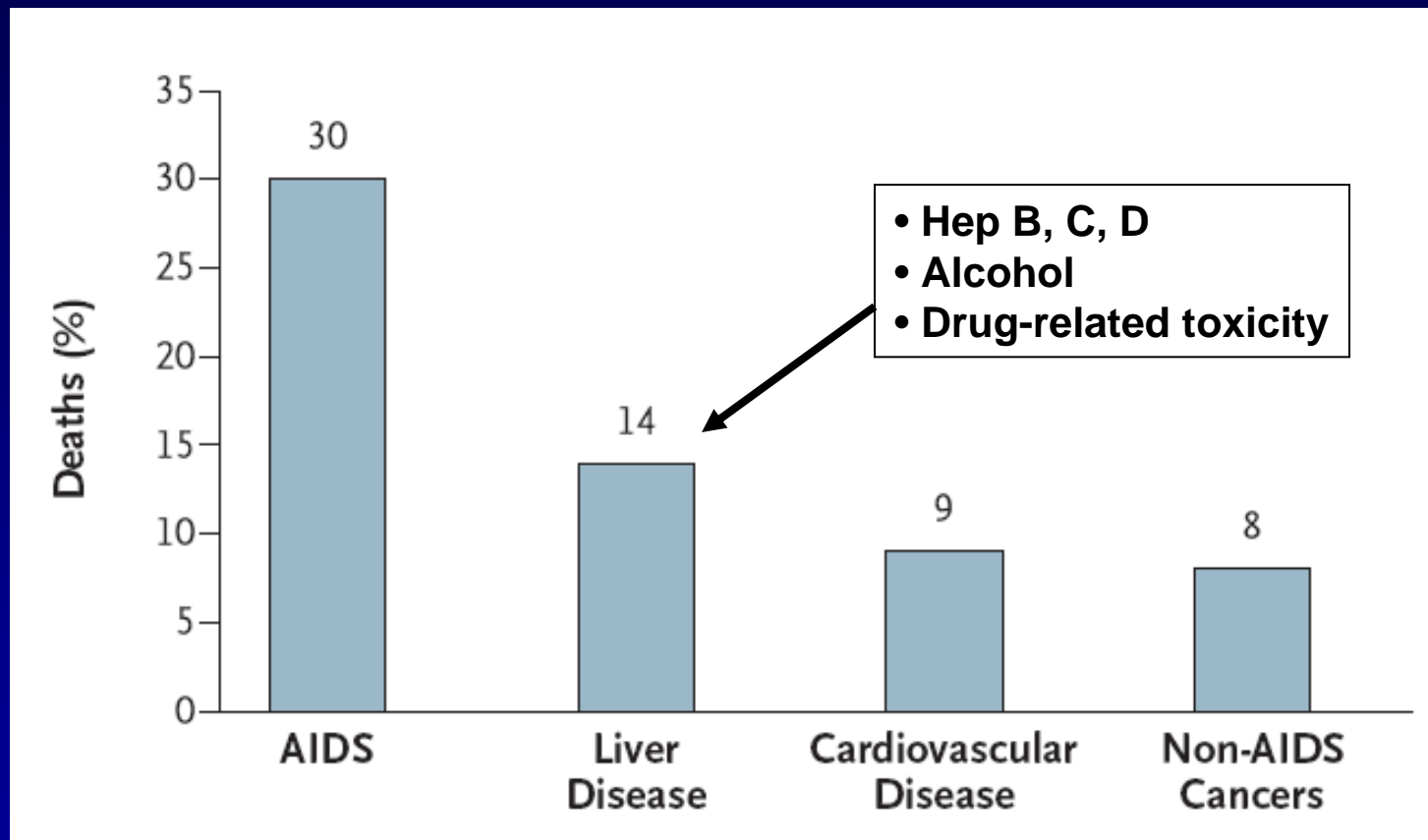


# **A 4-Year Follow-up of a Cohort of HIV-positive Cirrhotic Patients**

**Paula Tuma, Eugenia Vispo, José Medrano, Pablo Barreiro, Luz Martín-Carbonero, Pablo Labarga and Vincent Soriano**

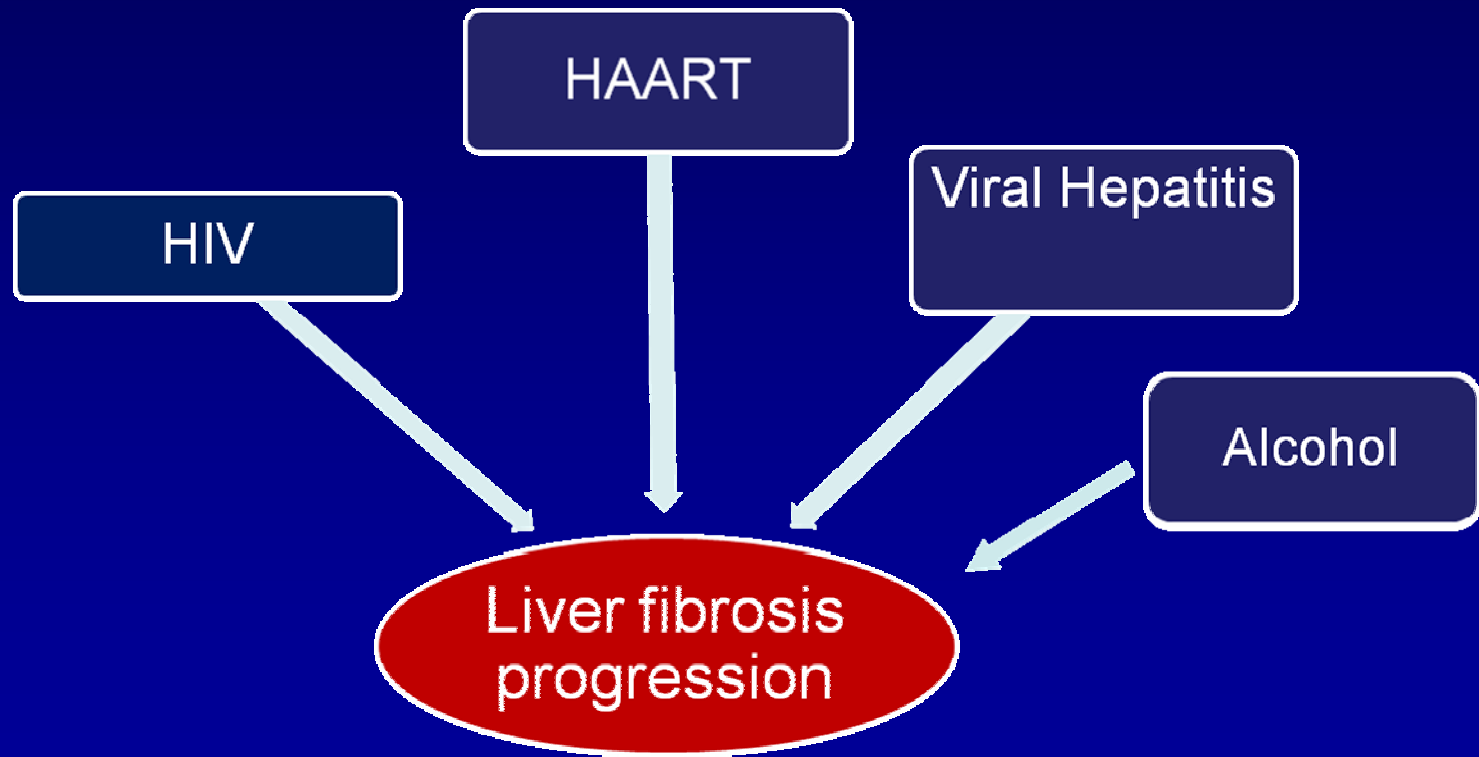
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# Deaths in a cohort of 23,441 HIV+ patients on antiretrovirals



Weber et al. Liver-related deaths in persons infected with HIV: the D:A:D study. Arch Intern Med 2006; 166: 1632-41.

# Background



# Methods

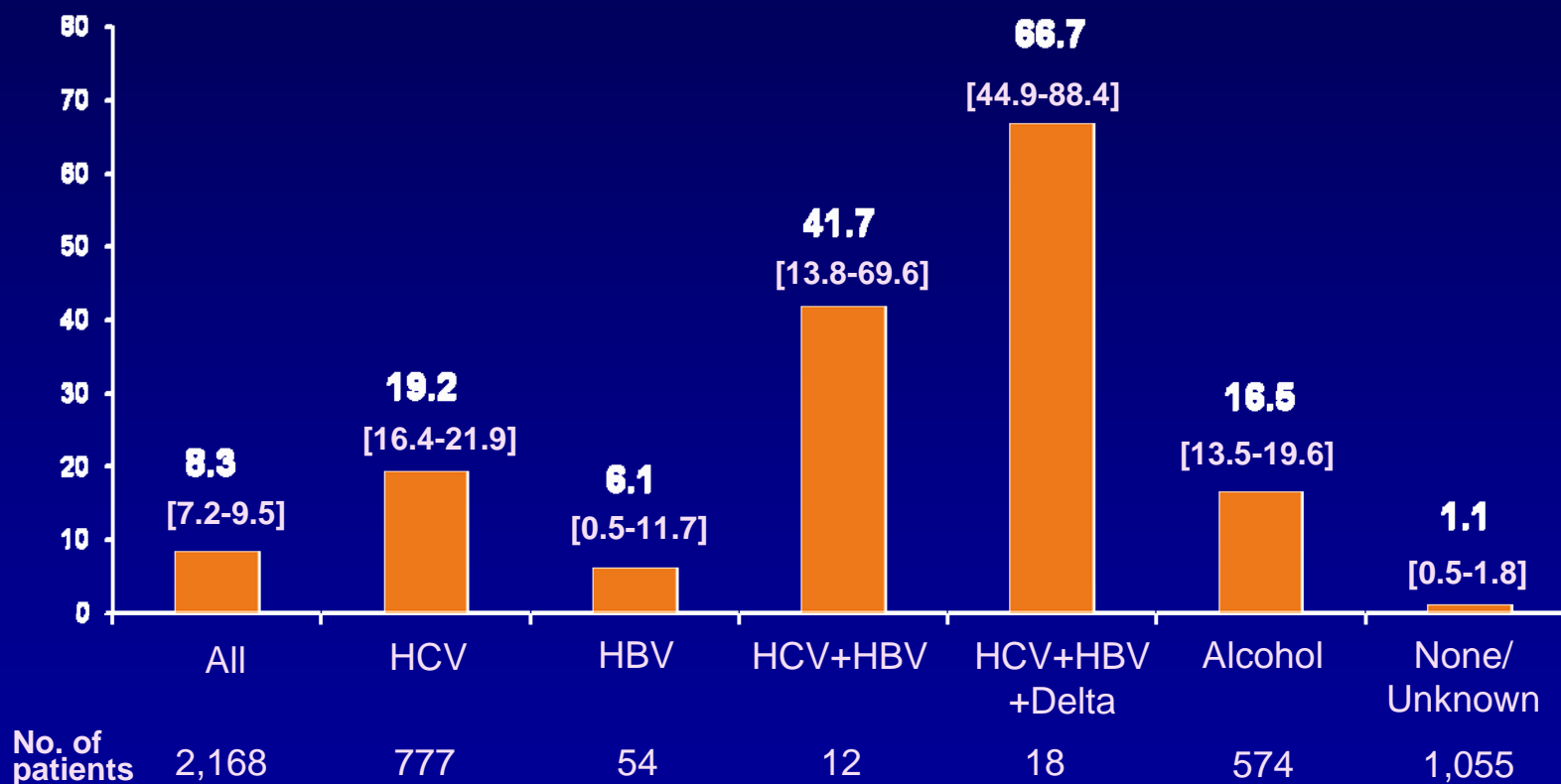
- Prospective observational cohort of HIV cirrhotic patients established in October 2004 and followed up to July 2008
- Liver fibrosis was measured by transient elastography (FibroScan<sup>®</sup>)
- Cirrhosis was defined as stiffness  $>14$  Kpa
- Clinical and laboratory data, and evolution of liver fibrosis were assessed during a median follow-up of 3.5 years

# Results

	HIV+ cirrhotics in 2004
<b>Total</b>	146*
Mean age (years)	44 (32-61)
Male gender (%)	113 (77)
IDUs (%)	120 (82)
Under HAART (%)	117 (80)
<b>Etiologies</b>	
Hepatitis C (%)	127 (87)
Alcohol abuse (%)	34 (23)
Hepatitis B (%)	17 (12)
Hepatitis delta (%)	6 (4)
Cryptogenic hepatitis	6 (4)
More than one viral hepatitis (%)	12 (8)

# Prevalence of Liver Cirrhosis in HIV

**Cirrhosis (%)**  
[95% CI]



# Outcome

	HIV+ cirrhotics
No. of patients	146
Cleared HCV after treatment (%)	6 (4)
Hepatocarcinoma (%)	1 (0.7)
Liver transplantation (%)	1 (0.7)
Liver-related deaths (%)	22 (15*)
Lost to follow-up (%)	5 (3)

\*Estimated liver mortality: 3.7% per year

# Clinical Manifestations of End-Stage Liver Disease

146 cirrhotic HIV-infected patients

Signs and symptoms	Prevalence (%)
Splenomegaly	90 (61.5)
Esophageal varices	87 (59.8)
Ascites	33 (22.6)
Encephalopathy	17 (12.1)
Variceal bleeding	9 (6.1)
Child-Pugh score:	
▪A	98 / 146 (67)
▪B	42 / 146 (29)
▪C	6 / 146 (4)

# Changes in Hepatic Dysfunction

	Year 2004	Year 2008	p
Meld (mean)	7.6 (0.6 - 21)	9.0 (0.6 - 19)	NS
FIB-4 (mean)	4.7 (0.6 - 17)	4.0 (0.7 - 19)	NS
Stiffness (mean)	27 (14 - 75)	25 (4 - 75)	NS

Moderate or severe hepatic dysfunction (Child B or C) was identified in 33% at baseline and in 34% at the end of follow-up

# Results

	New HIV cirrhotics since 2004
No. of patients	56*
Male gender (%)	48 (86)
IDUs (%)	47 (84)
MSM (%)	4 (7)
Heterosexual (%)	3 (5)
<b>Etiologies</b>	
Hepatitis C	50 (89)
Alcohol abuse	14 (25)
Hepatitis B	5 (9)
More than one viral hepatitis	4 (7)
Cryptogenic hepatitis	2 (4)

\*Estimated incidence: 0.7% per year

# Conclusion

- In the HAART era, progression of liver cirrhosis in HIV+ patients does not seem to differ much from that seen in HIV-negative counterparts.
  - early detection of advanced liver fibrosis using non-invasive methods may allow more appropriate care (periodic screening of HCC and esophageal varices)
  - Preserved CD4 counts & suppression HIV replication
  - Avoidance of hepatotoxic antiretroviral agents.
  - Treatment of all HBV (and delta hepatitis), and of compensated HCV.

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