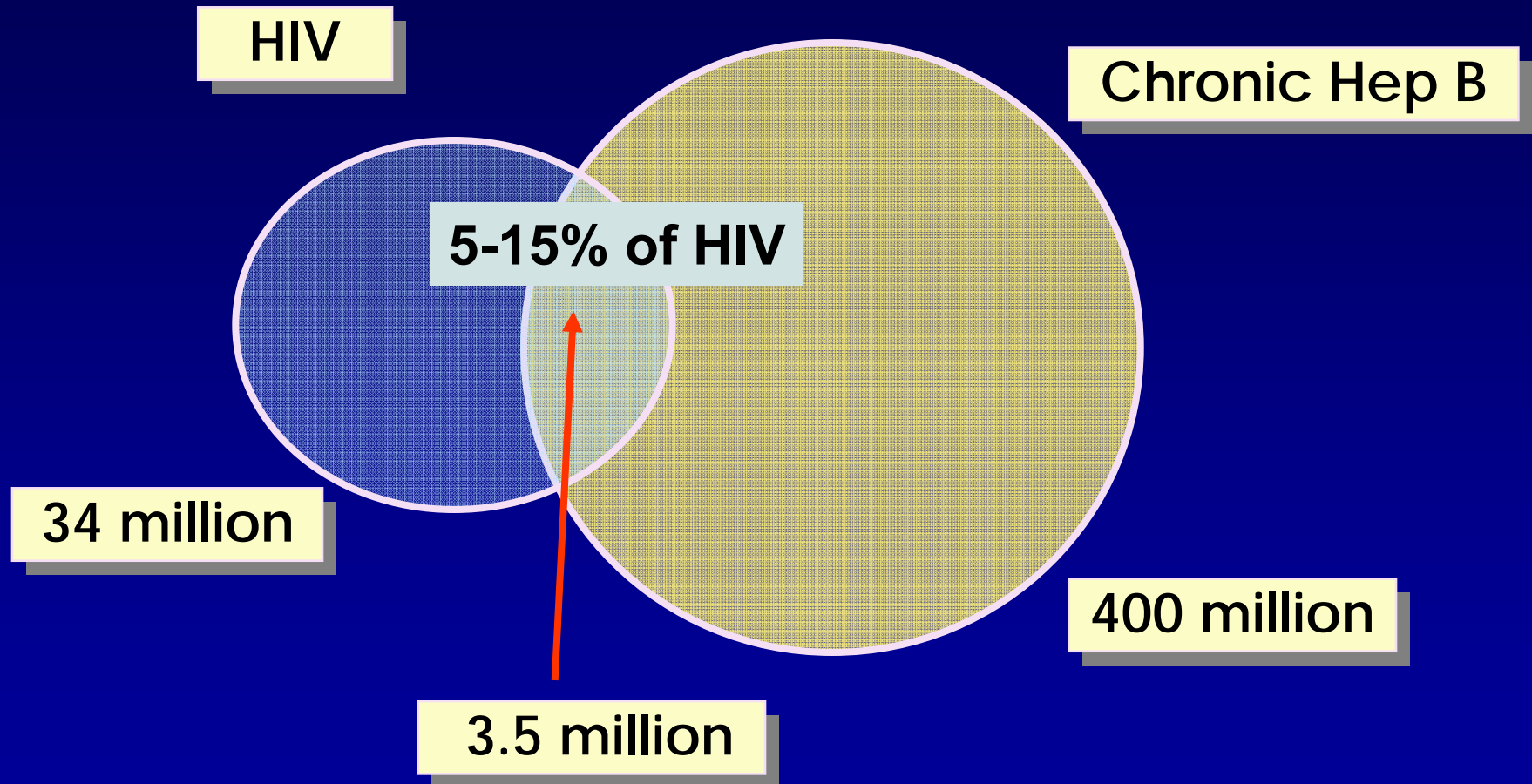


Outcome of Chronic Hepatitis Delta in Patients With or Without HIV infection in the HAART Era

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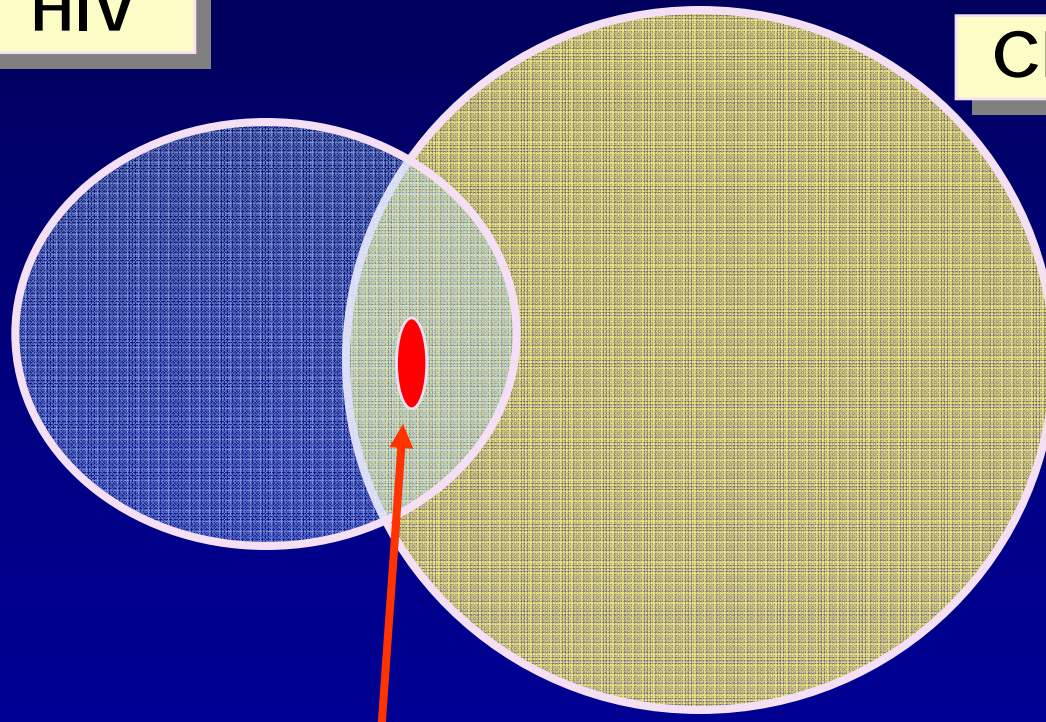
Overlapping HIV & HBV Epidemics



Overlapping HDV and HIV-HBV Co-infection

HIV

Chronic Hep B



HDV: 10% of HIV+HBsAg+

Objectives

- To assess the impact of HIV infection on the clinical outcome of patients with hepatitis Delta

Methods

- A retrospective analysis of all patients with HDV infection, attended since year 1998 at our institution
- Two groups:
 - HIV positive
 - HIV negative
- Comparison of clinical outcome

Methods

- Clinical and laboratory outcomes were recorded by chart review
- Liver fibrosis was measured by transient elastometry (FibroScan®) and FIB-4
- Values of FibroScan above 9.5 kPa and of FIB-4 over 3.25 were considered as diagnostic for advanced liver fibrosis (F3-F4 Metavir score estimates)

Study Population

- Inclusion: all HDV patients followed at HCIII from 1998 until mid-2008
- Patients with positive serum HCV-RNA were excluded from this analysis

Results

	HIV- positive	HIV- negative	p
No. of patients	16	10	
Median age (years)	43	40	NS
Males (%)	11 (73)	3 (31)	0.04
FS >9.5 Kpa (%)	6 (40)	4 (40)	NS
FIB-4 >3.25 (%)	7 (43)	6 (57)	NS

Virological Characteristics

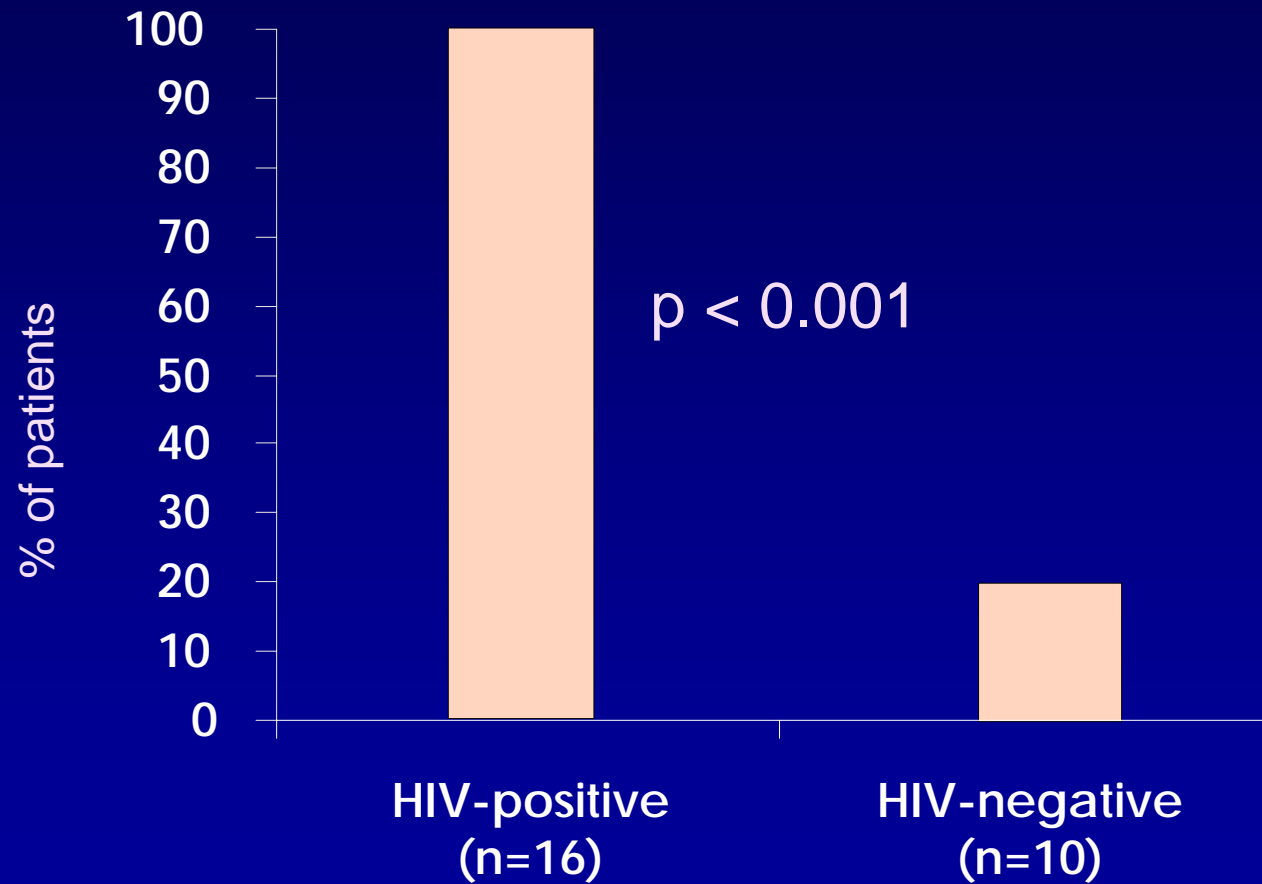
	HIV-positive	HIV-negative	p
Estimated median length of infection (years)	19	18	NS
Median HDV-RNA (\log_{10})	6.6 (2-8.4)	5.2 (4-6)	NS
Median HBV-DNA (\log_{10})	1.0 (1-6.6)	1.2 (1-4)	NS
HBeAg+ (%)	11 (73)	8 (80)	NS
HBV Genotype D	6 (50)	4 (67)	NS
HBV Genotype A	4 (33)	1 (17)	NS

Clinical Outcome

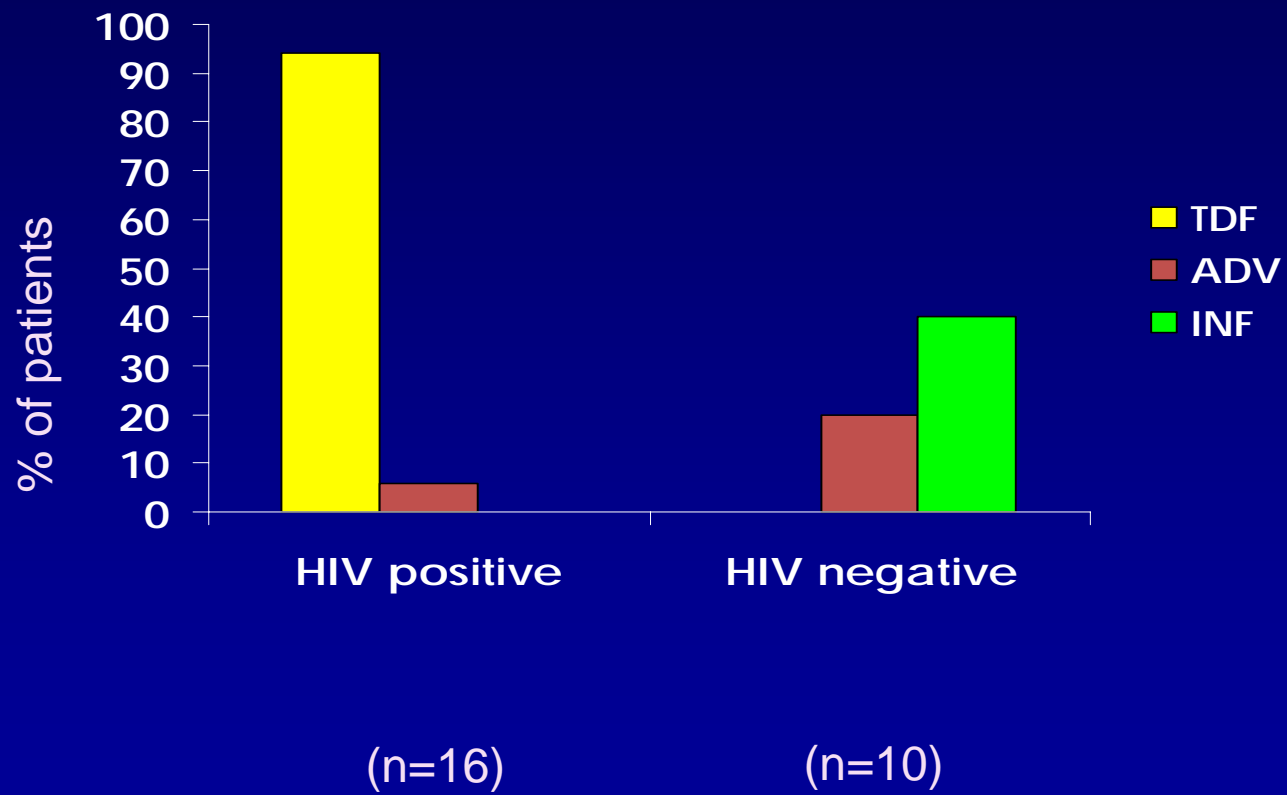
	HIV- positive	HIV- negative	p
No. of patients	16	10	
Hepatic decompensation (%)	2*(16)	4(40)	0.16
Portal hypertension (%)	4(24)	6(60)	0.11
Deaths (%):			
-liver related	0(0)	0(0)	NS
-others	1(6)	1(10)	0.67
Lost to follow-up (%)	2(12)	1(10)	0.71

*One HIV patient cleared HBV-HDV following liver transplantation

Proportion of Patients Under HBV Treatment

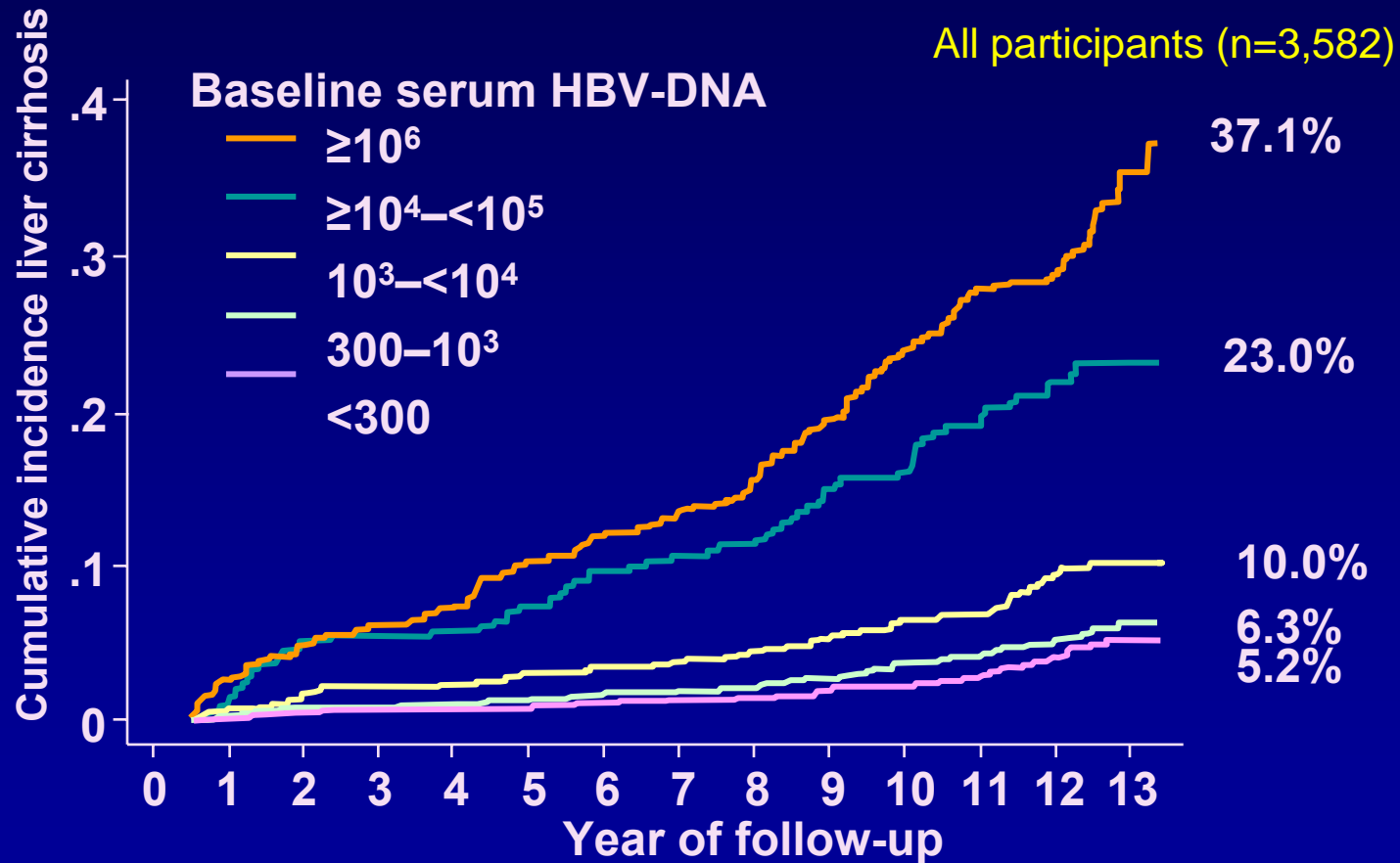


HBV Treatment



Discussion

Lower HBV-DNA is associated with reduced incidence of cirrhosis



Discussion

Follow-up of 14 HBV+Delta infected patients under long term effective anti-HBV therapy

Parameters	Baseline	End of follow-up	P-value
CD4 ⁺ T-cell count, cells/ml	360 (159.5-470.5)	362 (262.5-761)	0.753
Plasma HIV RNA, log ₁₀ copies/ml	1.7 (1.7-4.3)	1.7 (1.7-2.9)	0.735
Serum HBV DNA, log ₁₀ IU/ml	1.1 (1.1-4.6)	1.1 (1.1-1.1)	0.116
Serum HDV RNA, log ₁₀ copies/ml	7 (6.2-7.8)	5.8 (2-6.3)	0.011*
Serum HBsAg, IU/ml	6,899 (1,792.5-20,085.5)	4,428 (406-6,885)	0.424
Serum ALT, IU/ml	98 (66.5-147)	63.5 (32.8-110.8)	0.03*
Serum AST, IU/ml	87 (59.5-102)	60 (35-90.3)	0.03*

Conclusion

- HIV infection does not seem to be associated with a worsening of the virological and clinical outcome of hepatitis delta in the HAART era
- Classical faster clinical progression of delta hepatitis in the HIV setting may be prevented by:
 - Long term exposure to anti-HBV antiretroviral agents
 - HAART-associated immune recovery

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