

Hepatitis delta infections among persons with HIV in Europe

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Background

- 4.5% of HBV infected persons have serological evidence of exposure to HDV

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- HDV Prevalence is higher where HBV is Endemic as well as in certain risk groups such as PLWH
- HDV is the most severe form of viral hepatitis
- In HIV-infected patients, HDV-coinfection has been associated with:
 - higher incidence of hepatic flares and decompensation
 - increased overall- and liver-related- mortality
 - increased incidence of hepatocellular carcinoma



Aims and methods

Aims:

- To assess the prevalence of HDV infection in two large HIV cohorts.
- To describe the main epidemiological and clinical characteristics of HIV/HBV/HDV-coinfected individuals.
- To assess the impact of HDV infection on clinical outcomes: Overall mortality, liver related mortality and HCC.

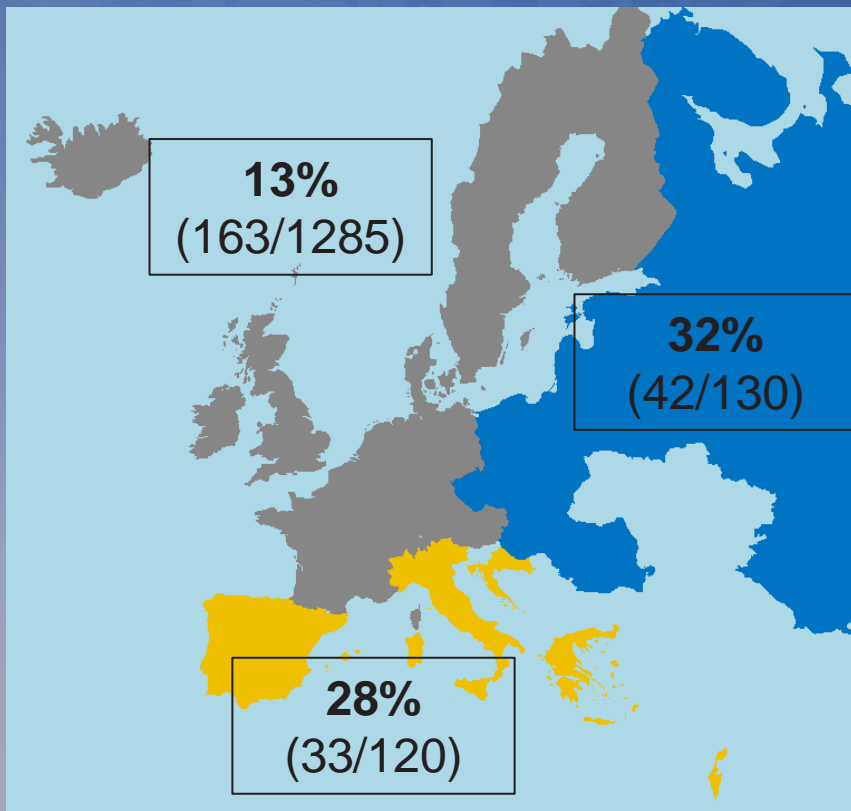
Methods:

- *Population:* All HBsAg-positive patients in the SHCS and EuroSIDA
- *Laboratory:* HDV serology (Diapro®) performed in all patients with a stored sample available. HDV RNA amplification in Anti-HDV-positive patients
- *Statistics:*
 - Descriptive statistics for demographic and clinical characteristics at initiation of ART and causes of death
 - Cox regression to evaluate the association between HDV infection and the main outcomes



Prevalence of HDV

- 1556/2793 (56%) HBsAg+ with available HDV serology result
- 237/1556 (15%) had a positive HDV serology of whom 132/200 (66%) had active HDV replication



Prevalence of HDV among HIV/HBV-coinfected individuals according to the different HIV Transmission groups

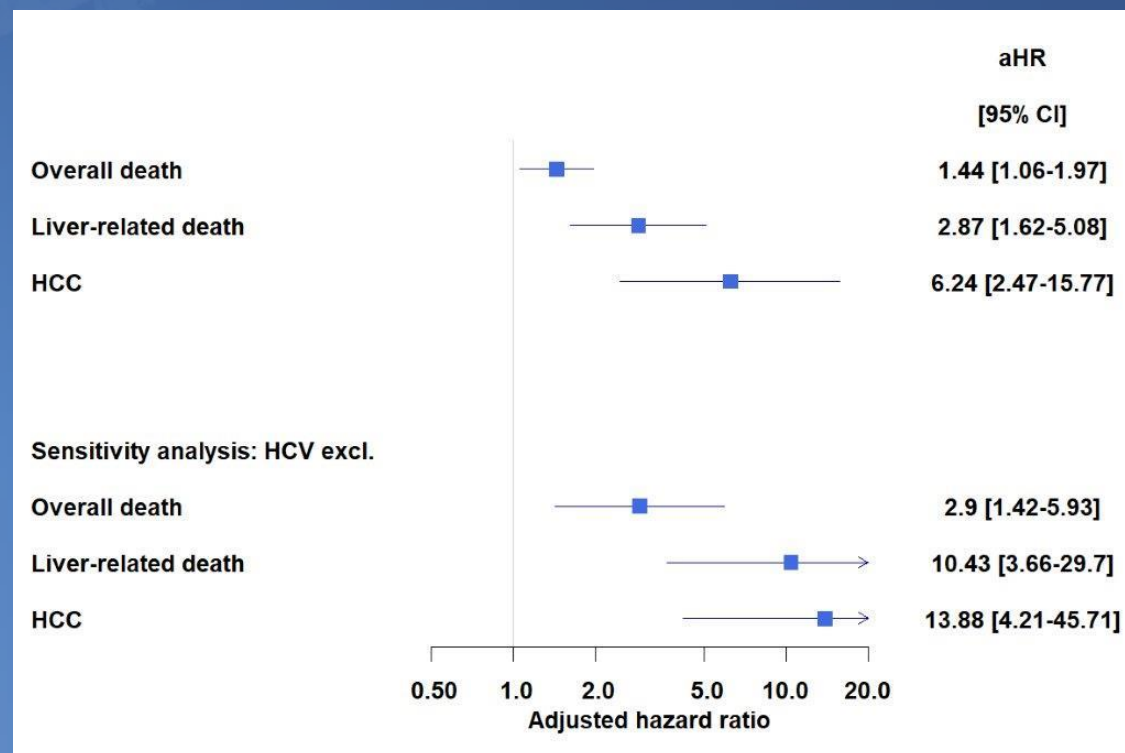
| | E. Europe | S. Europe | N&W Europe |
|--------------|-----------|-----------|------------|
| MSM | 0.0% | 2.3% | 2.6% |
| PWID | 55.6% | 50.9% | 48.9% |
| Heterosexual | 9.1% | 26.7% | 7.6% |



Causes of death

- 75 (32%) HDV-infected and 261 (20%) HDV-uninfected patients died during a median follow-up time of 9.8 years [IQR 4.4-16.6]
- 43% (32/75) of the deaths were liver related in HDV-positive patients compared to 18% (46/261) in HDV-negative individuals

Impact of anti-HDV positivity on clinical outcomes



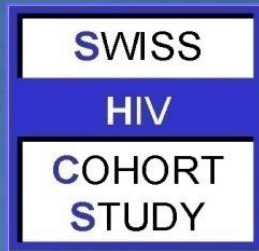
Conclusion

- Among HIV/HBV-coinfected individuals, the prevalence of HDV infection was 13% in North-Western Europe and twice as high in Southern and Eastern Europe.
- The prevalence is particularly high (50%) among PWIDs across all Europe.
- HDV is independently associated with mortality and liver related events.
- Need for systematic screening of HDV infection in HIV/HBV-coinfected patients and more studies on treatment modalities for HDV co-infection.



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and EuroSIDA (<http://chip.dk/Research/Studies/EuroSIDA/Study-group>)

