

Why is Genotype 3 ‘Difficult to Cure?’

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Disclosures

- I have received funding from AbbVie, BMS, BI, Gilead, Roche, Merck, Novartis, Springbank, Achillion, Tekmira, Alnylam

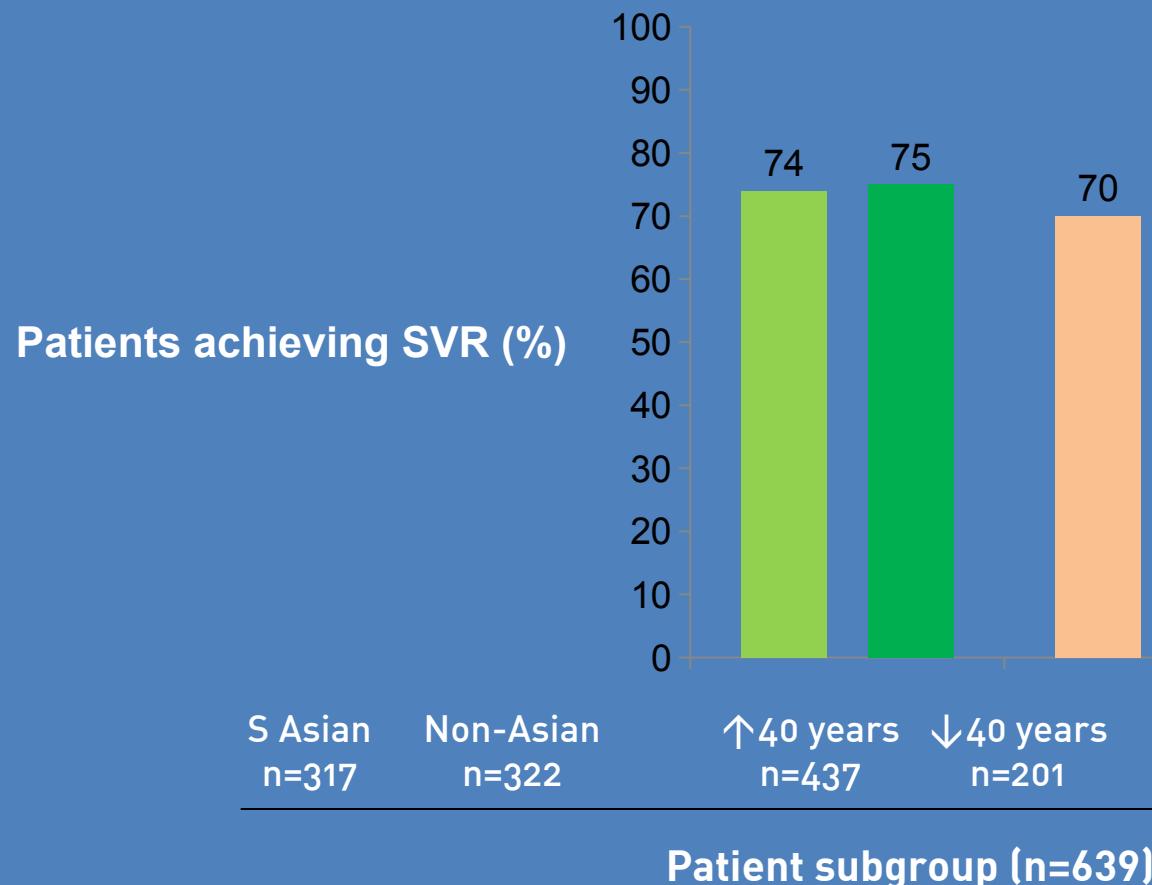


Genotype 3

'A nice virus?'



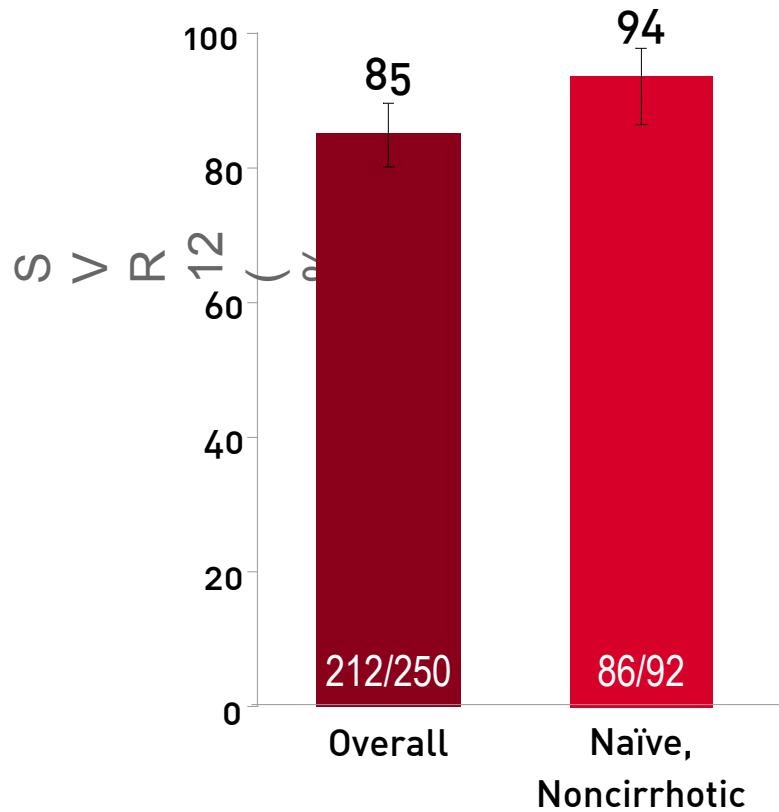
Peg/Riba Treatment for Genotype 3 24 weeks



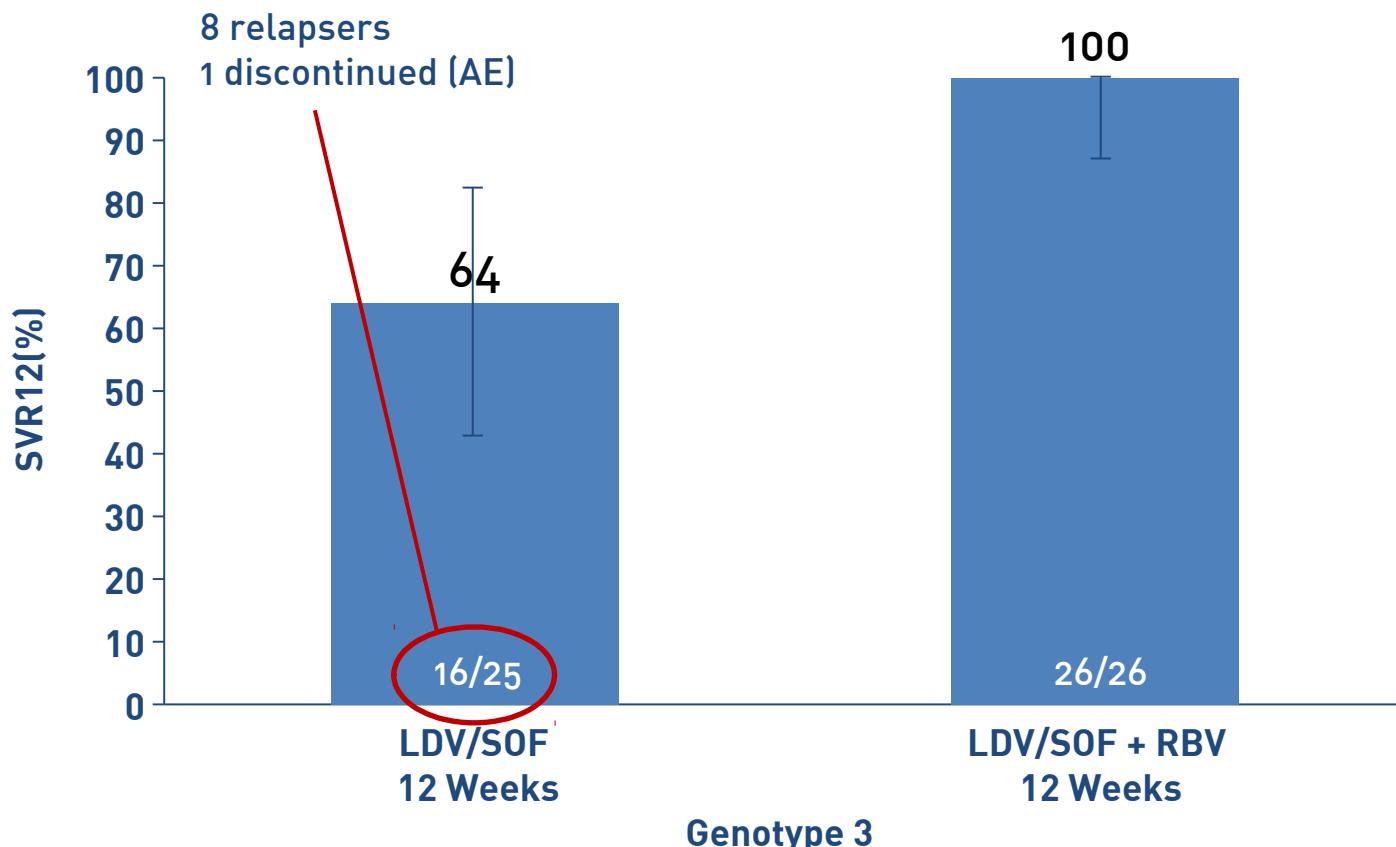
Peg+Riba+Sofosbuvir for Genotype 3 12 weeks



Sofosbuvir + ribavirin for G3 24 weeks therapy



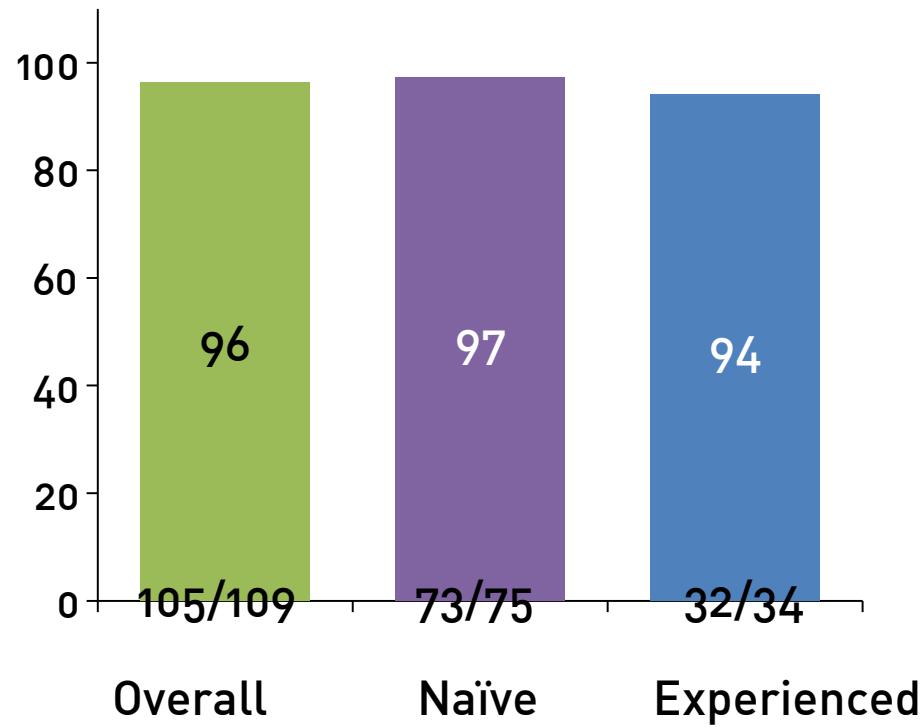
SOF/LDV for 12 weeks G3 Treatment Failures



Sofosbuvir + Daclatasvir

12 weeks therapy

Patients without cirrhosis



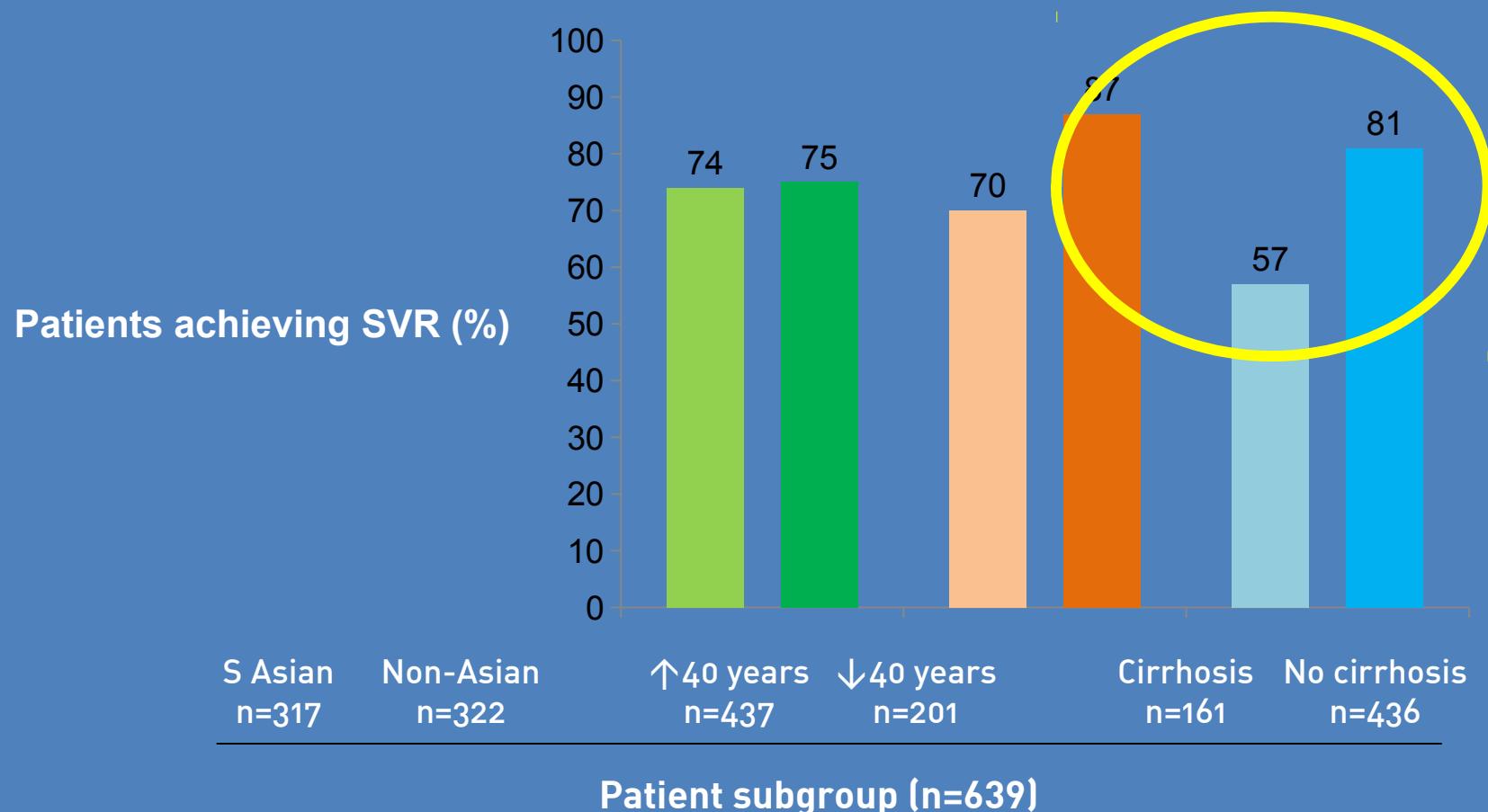
G3 Without Cirrhosis

Easy to cure

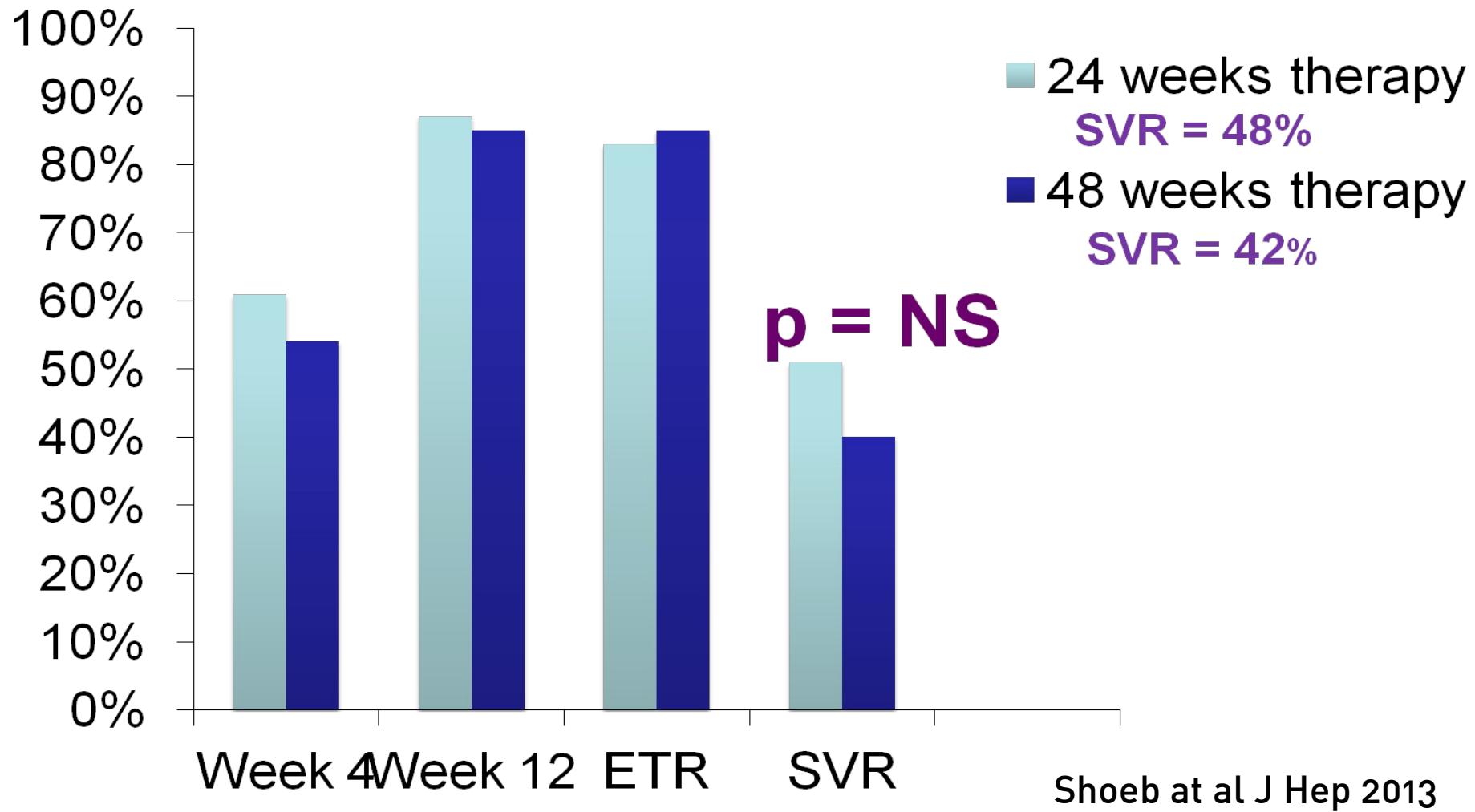
Genotype 3 with cirrhosis



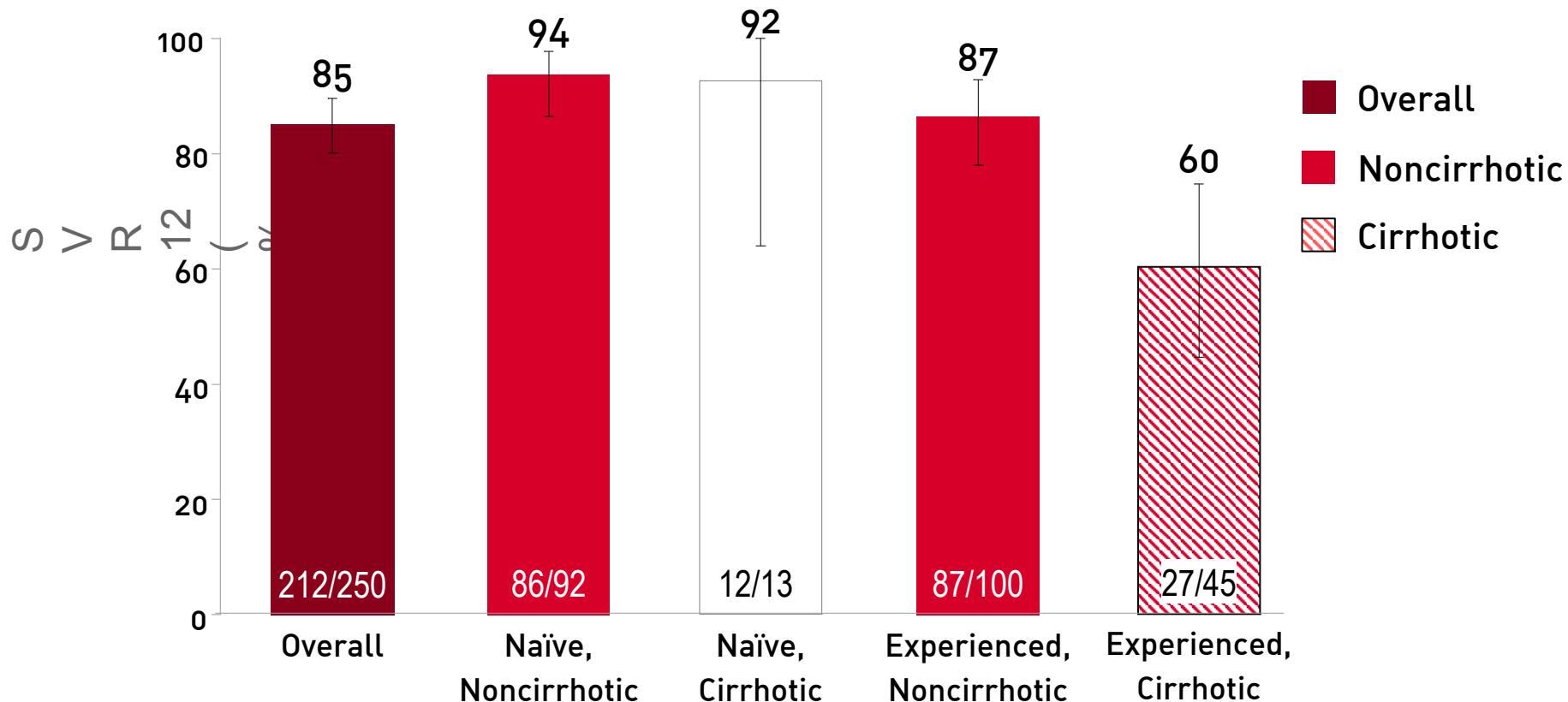
Peg/Riba Treatment for Genotype 3 24 weeks



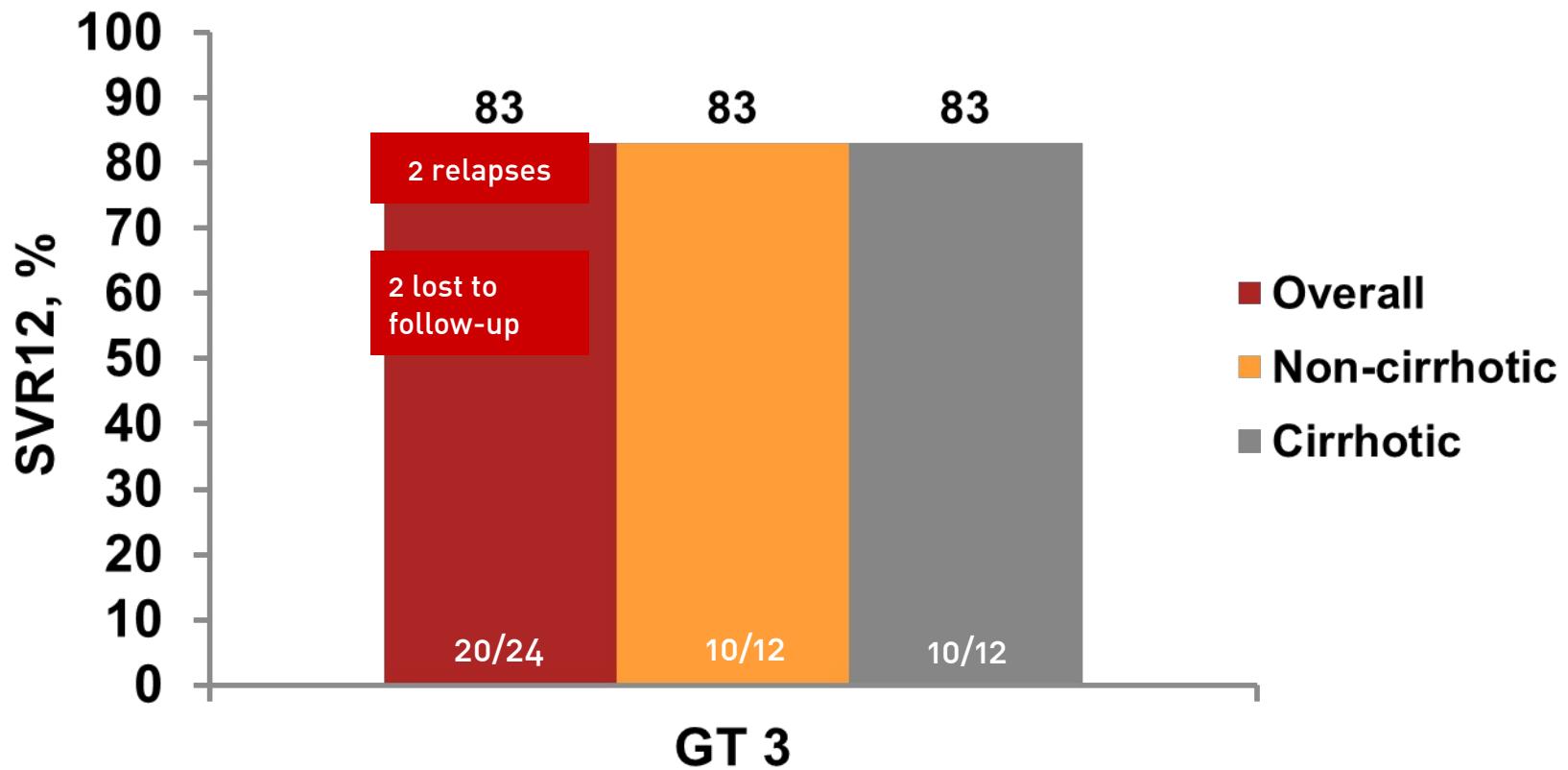
Genotype 3 Cirrhosis Still relapses after 48 weeks



Sofosbuvir + Ribavirin for G3 24 weeks therapy

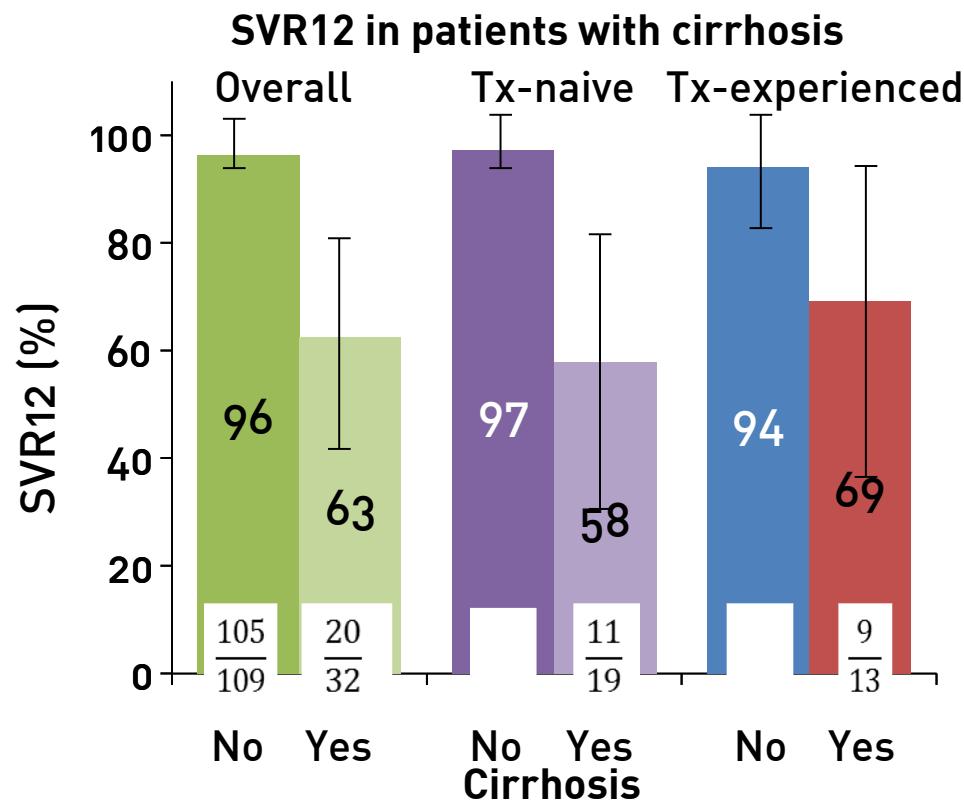


12 weeks Peg+Riba+Sofos



Sofosbuvir + Daclatasvir

12 weeks therapy



Tough Genotype 3

- Ribavirin seems critical
- Does extending therapy help?
- How long do we need?
- EASL 2015 may give us some answers

Why is Genotype 3 cirrhosis so tough? (Why do patients relapse?)

Possibilities:-

1. Genotype 3 'tough viruses' cause cirrhosis
(we only cure those who don't get disease!)
2. The virus hides away from the drugs

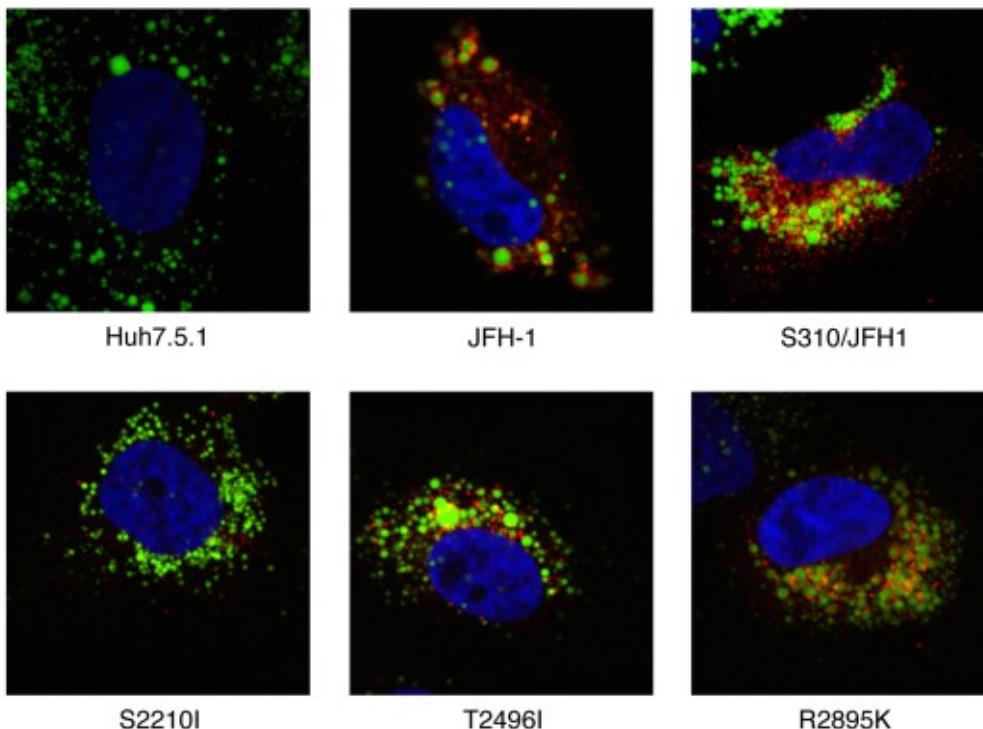
In the scars

In the fat

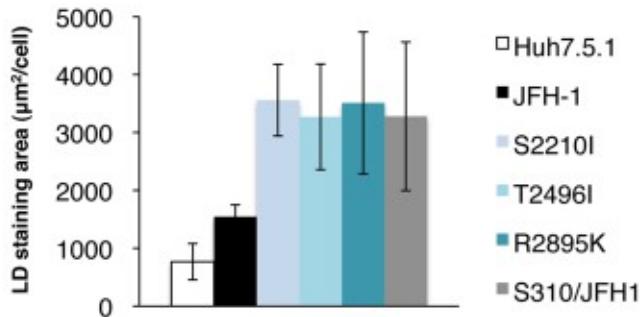
Somewhere else

Liver fat in Genotype 3

A

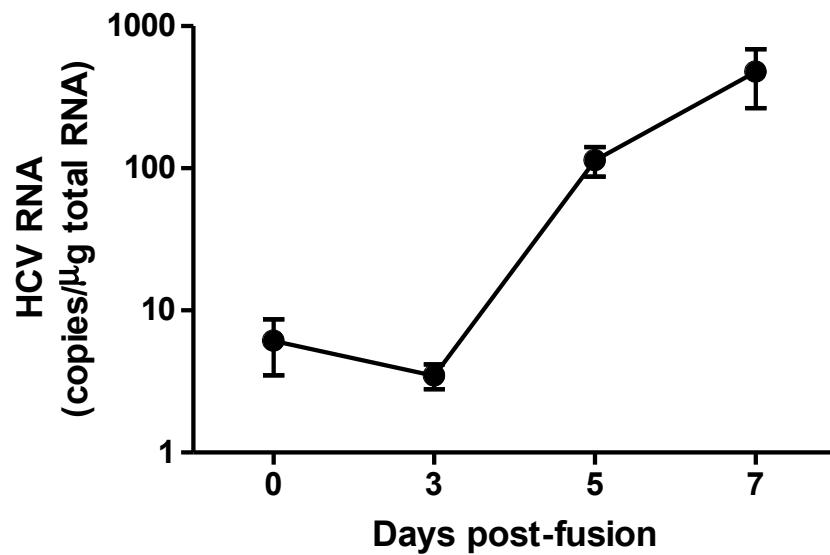


B

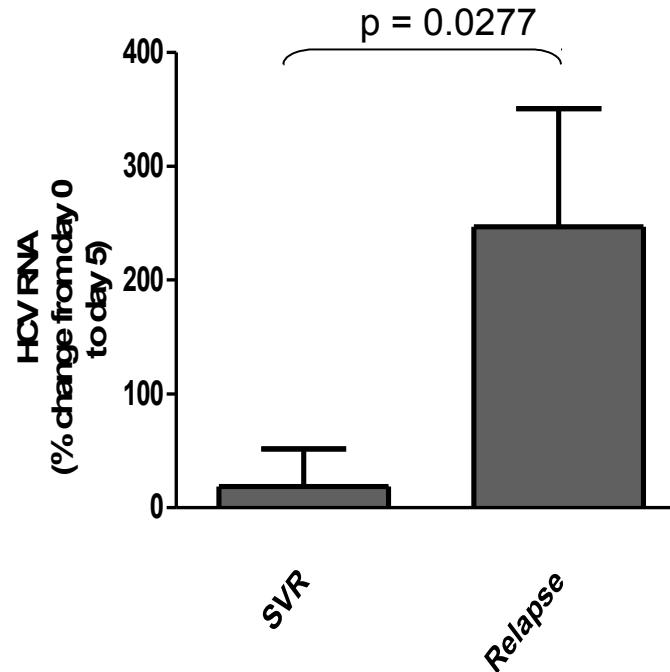
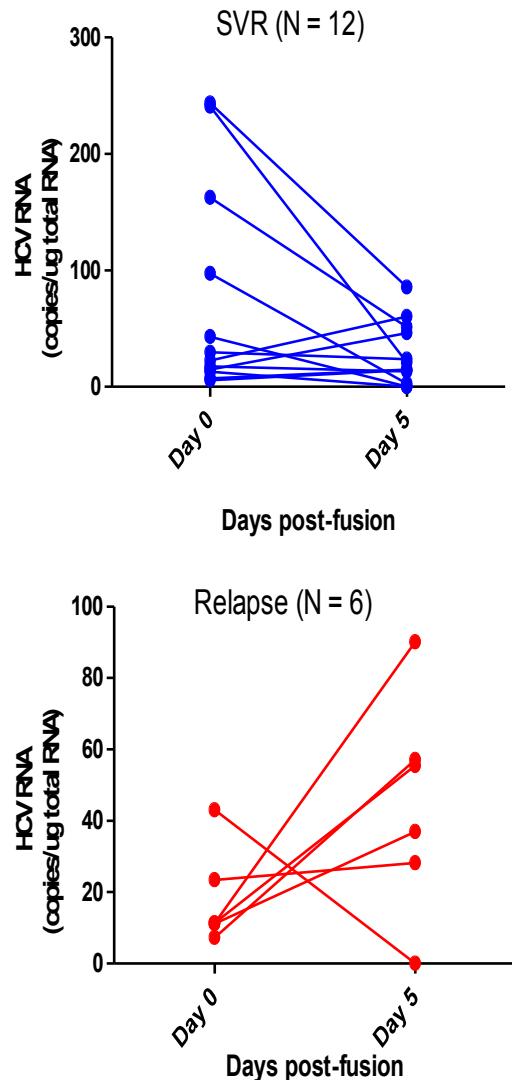


Replication competent HCV can hide in monocytes

Increase in HCV RNA after fusing infected monocytes to HuH7.5 cells



Viable HCV in end of treatment monocytes may predict relapse in G3 HCV



Genotype 3

- Still unresolved
- For non-cirrhosis – easy to treat
- For cirrhosis – tough to manage
- We may need new drugs and extended regimes

Genotype 3 Clinical Message

- Get in early
- For Genotype 3

CIRRHOSIS IS REALLY BAD NEWS