

# HCV Update: Cases from the Clinic



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## Case 1 - DPS



- 1999 - 52 y.o. male BMI 31, Diabetic, hypertensive, hyperlipidemic. MI age 48, On Metformin
- AST 209, ALT 136, TG 202, A-1-C 8.1
- MRI – fatty infiltration of liver
- Liver Bx: s, teatohepatitis, very early fibrosis (F-1)
- 2009 – BMI 29, AST 80, ALT 78, TG 246, A-1-C 6.1
- MRI – diffuse fatty infiltration, no cirrhosis
- 2015 – BMI 30.1, AST 60, ALT 62,
- MRI diffuse steatosis, two 2 cm lesions in right lobe , no cirrhosis

## Case 2 - AC



- 28 year old Chinese female, financial exec
- Born in New York City to Chinese immigrant parents
- Brother age 32 born and living in Hong Kong recently diagnosed with HCC
- Asymptomatic, getting married in 3 mos
- ALT /AST 19/22
- HBsAg pos, eAg neg, eAB pos
- HBV DNA 2 million c/ml (400K IU)
- MRI liver normal

## Cases 3 & 4



- Case 3 (EKB) 54 y.o.male
- HCV GT 2
- Fibroscan 3/27/14 : 6.2 kPa
- Treated with Sof & Riba for 12 wks Attained SVR 12
- Fibroscan 6/17/15: 3.7 kPa
  
- Case 4 (JRS) 49 y.o. male
- HCV GT 1A
- Fibroscan 5/9/14 : 8.8 kPa
- Treated with Cosmos reg for 12 wks Attained SVR 12
- Fibroscan 5/21/15: 4.0 kPa

# REGRESSION OF FIBROSIS AND PORTAL HYPERTENSION IN CIRRHOTICS WHO ATTAIN SVR



- At 72 weeks: the average decrease in hepatic venous pressure gradient was 38% and reached less than 6 mmHg in half the patients
- At 72 weeks the Fibroscan reading less than 7.1 kPa was attained in 50% of SVR patients
- PO 158 EASL 2015 Puente A. etal

# Cirrhosis Regression in HCV SVR patients after treatment



- Meta Analysis of six studies with 443 patients with cirrhosis
- 137 achieved SVR
- Of the 137 SVR patients, 73 (53%) showed regression of cirrhosis
- The risk ratio of cirrhosis regression was related to the duration of follow up between biopsies
- Relative risk of regression of cirrhosis was 4.33 when follow up liver biopsy was >36 months and 1.79 when median time to follow up biopsy was less than 36 months
- Akhtar, E, Manne, V, Saab, S Liver Int 2015 Jan 30-36

# Improvement in Liver Function and Fibrosis 48 Weeks Post HCV RX with Non IFN Treatment



- 380 patients with cirrhosis
  - Randomized to 12 or 24 weeks 3D+ribavirin
  - Evaluated 48 weeks post treatment
  - 40% improvement in fibrotest scores in SVR
  - Increased fibrosis scores or no change in patients who did not attain SVR
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- EASL PO808 H.Wedemeyer et al. 2015

# Impact of SVR 12 on Development of Complications and Regression of Fibrosis



- 226 consecutive patients/112 F4 (Cirrhosis)
  - Cumulative probability of hepatic decompensation one year post treatment in SVR 12=2% vs. non SVR =19.3%
  - 60% SVR12 patients showed significant decrease in fibrosis
  - (Boceprivir and Telaprevir patients)
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- EASL PO812 C Perello etal 2015



# Effect of HCV antiviral therapy on Fibrosis Progression

- 4,148 patients with HCV
- In patients who achieved SVR:  
The extent of fibrosis decreased steadily until it levelled off at year 4.5
- Absence of treatment and unsuccessful treatment were characterized by progressive increase in fibrosis



- PO778 EASL 2015 Lu, M et al

# PEG & RIBA reverses Fibrosis in HIV/HCV

## Apricot study

- Of 96 patients with cirrhosis all but one had a reduction in Ishak fibrosis score of 2 units in year five and 58% had a decrease of 3 units or more
- J AIDS 2006
- J of Viral Hepatitis 25 April 2013
- 216 patients with at least three successive fibroscans
- 71% of SVR patients who started with F2 fibrosis or higher had improvement
- Median time from baseline to first follow up 46 months

# Effect of antiviral treatment on all cause mortality and development of HCC

- Chronic Hepatitis Cohort Study- 9,143 patients—median follow up 6.4 years
- Moderate to advanced fibrosis was an independent risk factor both for death and HCC
- Patients with Genotype 3 had higher risk of HCC
- SVR reduced development of HCC by 46%
- Treatment-regardless of whether SVR attained reduced all cause mortality
  
- PO770 EASL 2015 Lu. M. etal