SESSION J8

Hepatitis C: Evaluation & Treatment in the Older Adult

Asma Siddique, MD

Session Description:

This session will discuss HCV burden, diagnostic algorithm, staging of HCV and management of genotype 1, 2, 3 with focus on newer medications and clinical trials.

Learning Objectives:

Following my presentation, participants will be able to:

1. Recognize the burden of HCV globally, in the United States and in the elderly population.
2. Discuss staging, invasive versus noninvasive.
3. Learn treatment options for HCV, genotype 1, 2, 3 and should you wait or treat.
Hepatitis C: Evaluation and Treatment in Older Adult

ASMA SIDDIQUE MD
VIRGINIA MASON LIVER CENTER

Global Burden of Chronic HCV Infection

• 2-3% of world population estimated to have chronic HCV (150-170 M)
• Egypt, Pakistan, China have high rates of chronic HCV

Burden of Chronic HCV in US

• ~3.2 million people are chronically infected
• Probably 5-7 million - high-risk populations underrepresented or not included in NHANES
  - Incarcerated, homeless, nursing home residents, veterans, active military duty, healthcare workers, and others
• Seroprevalence is higher in
  - 1945-1965 birth cohort (3.5%)
  - Non-Hispanic blacks (2.2%)
  - Males (1.9%)

Burden of Chronic HCV in Elderly

National Health and Nutrition Examination Survey III
NHANES III – 21,241 participants

• HCV antibody positive
  - 0.9% 60-69 yrs; 1.0% > 70 yrs
• Highest in Non-Hispanic Blacks
  - 2.5% 60-69 yrs; 2.8% > 70 yrs
• Elderly residing in nursing homes - 4.3%

Natural History of HCV Infection

Spontaneous clearance
0.5% per Year
Chronic hepatitis C (CHC)
10-20% Over 20 years
Liver cirrhosis
1%-4% per Year
Hepatocellular carcinoma (HCC)
3%-4% per Year
Hepatic decompensation
Annual mortality rate of 2%-4% in CHC-infected patients with cirrhosis

Topics

• Burden of HCV – Global, US and elderly
• Diagnostic algorithm for HCV
• Staging HCV – invasive vs noninvasive
• Treatment HCV – G1, G2, G3, focus on new drugs and clinical trials
HCV-related decompensated cirrhosis and HCC are rising as manifestations of liver disease in the aging population

- 73.4% of HCV-related deaths occurred among persons 45-64 years of age
- Median age was 57 years; ~20 years less than the average lifespan of persons living in the US


**Cirrhosis And HCC Is Projected to Peak in the Coming Decades**

Number of Cases:

- Projection based on a dynamic, multicohort, natural history model of data from the CDC, NHANES, and a review of the medical literature, with conservative estimates of disease progression and complications. Model assumes first-year mortality of 80%-85% for HCC.
- During the period from 1999 to 2007.

**HCV Is the Leading Cause of Liver Transplantation in the US**

<table>
<thead>
<tr>
<th>Primary cause of liver disease in adults (2012)</th>
<th>Adults on liver transplant waiting list</th>
<th>Adult liver transplant recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis C</td>
<td>30.1%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Other/unknown</td>
<td>25.7%</td>
<td>22.0%</td>
</tr>
<tr>
<td>Alcoholic liver disease</td>
<td>23.9%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Cholestatic disease</td>
<td>8.5%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Malignancy</td>
<td>6.9%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Acute hepatic necrosis</td>
<td>2.1%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Metabolic liver disease</td>
<td>2.8%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Other/unknown</td>
<td>22.0%</td>
<td>17.2%</td>
</tr>
</tbody>
</table>

**The Aging Population With HCV**

- ~70% of HCV-infected individuals are from the 1945-1965 birth cohort
- Increasing age may affect disease progression
  - A 50-year-old with chronic HCV has a 3-fold greater risk of fibrosis progression than a 20-year-old
  - Individuals acquiring infection at ≥50 years of age developed cirrhosis after 12 years, compared to 30-40 years in those infected at ≤40 years of age
  - In individuals acquiring infection at ≥50 years of age, mean time for developing HCC was 31.5 years, compared to 30-40 years in those infected at ≤40 years of age
- Adults older than 65yrs present with complications – cirrhosis, hepatic failure and hepatocellular carcinoma as an initial presentation

**The Aging Population With HCV**

Current practice guidelines – DO NOT withhold antiviral therapy based on advanced age alone.

- Life expectancy
- QOF improvement
- Co-morbid conditions
- HCV treatment now - easier to tolerate, shorter duration therapy, better outcomes

**HCV Screening Guidelines**

NEW CDC Recommendation

Adults born during 1945 through 1965 should receive one-time testing for HCV without prior ascertainment of HCV risk factor

**HCV Screening Guidelines**

Recommendations for the identification of Chronic Hepatitis C Virus Infection Among Persons Born During 1945-1965
HCV Screening Guidelines


Age-based
- One-time screening for adults born between 1945 and 1965

Risk-based
- Past or current injection drug use or intranasal drug use
- Long-term kidney dialysis
- Recipients of transfusion or blood component, organ transplant before July 1992, clotting factor concentrate before 1987, blood from a donor who later tested HCV-positive
- Healthcare worker exposed to HCV-infected blood
- Receipt of an unsterile/unregulated tattoo
- Children born to HCV-infected mothers
- Incarceration

Other medical conditions
- Unexplained chronic liver disease, including persistently elevated ALT
- HIV infection
- Unexplained chronic liver disease, including persistently elevated ALT

Screening HCV

HCV test

Anti-HCV Antibody
Positive
HCV RNA

Management of HCV infected patients

Hepatitis C Ab +ve
Hepatitis C PCR - confirm active infection + HCV genotype
Blood Test
(Bilirubin / ALT / AST / ALK
Albumin / PT)
Exclude other associated liver disease (Autoimmune, metabolic, HBV, HIV)
Stage Liver Fibrosis
Non-invasive testing fibroscan/
APRI/Fibrosure
Liver Biopsy
Discordance
Non-invasive Test

FibroTest/
Fibrosure

FibroScan

Non-invasive Test

Transient Elastography or FibroScan
# HCV Screening Guidelines

HCV Screening Guidelines From AASLD/IDSA/IAS-USA, CDC, and USPSTF

<table>
<thead>
<tr>
<th>Age-based</th>
<th>• One-time screening for adults born between 1945 and 1965&lt;sup&gt;1-3&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-based</td>
<td>• Past or current injection drug use&lt;sup&gt;1-3&lt;/sup&gt; or intranasal drug use&lt;sup&gt;1,3&lt;/sup&gt;</td>
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ALT = alanine aminotransferase; AASLD, IDSA, IAS-USA = The American Association for the Study of Liver Diseases, the Infectious Diseases Society of America, and the International Antiviral Society-USA; CDC = Centers for Disease Control and Prevention; HIV = human immunodeficiency virus; USPSTF = US Preventive Services Task Force.

Management of HCV infected patients

Hepatitis C Ab +ve

Hepatitis C PCR - confirm active infection + HCV genotype

Blood Test (Bilirubin / ALT / AST / ALK Albumin / PT)

Exclude other associated liver disease (Autoimmune, metabolic, HBV, HIV)

Stage Liver Fibrosis

Non-invasive testing fibroscan/ APRI/Fibrosure

Liver Biopsy

Discordance
Transient Elastography or FibroScan

The probe induces an elastic wave through the liver. The velocity of the ultrasonic shear wave is a measure of elasticity (fibrosis). Explored volume: 2.5 cm × 4 cm × 1 cm.

Good accuracy in detecting cirrhosis. Will likely replace liver biopsy for staging.

Staging for Chronic HCV
Liver Biopsy vs Fibroscan

Liver Biopsy
- Expensive
- Complications
- Sampling error – 1/50,000 part of liver analysed
- Observer variability
- Poor patient compliance
- Useful to rule out other liver disease

Fibroscan
- Safe and fast
- Repeated measurements
- Longitudinal followup
- Predicts risk of complications – PHT
- More acceptable by patients
- No risk of complications
- Not freely available at present
- Difficult markedly obese
- Influenced by hepatic inflammation (acute HAV)

MRI Elastography

- Demonstrate the liver stiffness in the WHOLE organ
- Color coded
- MRI elastography was better at detecting cirrhosis/ significant fibrosis than Fibroscan and APRI index

Ito et al. AJR Am J Roentgenol 1999; 173:591–596

Should Elderly HCV Patients Be Considered For Treated?
Liver-related mortality

This analysis was part of a larger study examining the quality of life and economic burden of HCV in community patients recruited from 5 large tertiary care hospitals in Europe and Canada. Complete follow-up ranged between January 2005 and October 2011. Median follow-up duration was 8.4 years.

Sustained responders = undetectable HCV viral levels 6 months after therapy; treatment failures = detectable HCV viremia after therapy, or after end of treatment. Patients with advanced liver disease were excluded.

Impact of HCV on Health-Related Quality of Life

Lower health-related quality of life (HRQoL) in HCV-diagnosed patients (2009 US National Health and Wellness Survey)

SVR Was Associated with Improved Quality of Life in a Real-World Clinic Population

A study of community patients from hospitals in Vancouver has shown that sustained responders reported higher scores than treatment failures on each domain of the SF-36 and on utility measures.

Costs Associated with HCV Are Projected to Increase

- Aggregate US HCV-related healthcare expenditure estimated to be up to $30 billion per year
- Higher costs may be attributed to increasing healthcare utilization, such as hospitalizations and emergency department visits, by HCV-infected patients
- The number of serious long-term complications is expected to increase in the next decade, with the majority of peak costs attributable to more advanced liver diseases (according to a recent system dynamics modeling study)

HCV Treatment Cost Effectiveness

Traditional Cure rate ~50%
2011 Cure rate 50-79%
Now/Future Cure rate 90-100%

Traditional Rx Cost $20,000
2011 Rx Cost $70,000
Now/Future Rx Cost > $150,000
HCV Treatment Cost Effectiveness

Mean per-patient-per-month (PPPM) follow-up costs by treatment history and liver disease severity (2010)

CC = compensated cirrhosis; ESLD = end-stage liver disease; NCD = noncirrhotic disease.

Covariates adjusted for in the analysis included age, sex, geographical region, index year, baseline comorbidities, and baseline treatment for HCV.


Treating HCV Has Reduces Healthcare Costs in the US

HCV-related costs

Medical costs

Total costs

Treating HCV Has Reduces Healthcare Costs in the US

HCV Therapy: Past, Present and Future

Interferon

Ribavirin

Suppressive HCV with DAA combination (IFN + DAA)

Frequent curability of diverse patients without IFN

Approval of simeprevir and sofosbuvir with IFN

First approved IFN-free therapy: SOF + RBV for GT2/3

IFN-free DAA combinations (GT1)

Potential approval of other DAA with IFN (eg, faldaprevir)

Efficacy With Simeprevir + P/R in Tx-Naive GT1 Patients: Phase III Trials

SMV + P/R for 12 wks followed by 12-36 wks of P/R (placebo control)

Efficacy With Simeprevir + P/R in Tx-Naive GT1 Patients: Phase III Trials

HCV Treatment In Elderly

IN THE PAST

• Older adults — (≥70 years of age) — not included in clinical trials
• Peginterferon and ribavirin lower SVR rates in older patients.
• Multiple comorbid illnesses
• Less tolerant of the side effects of interferon and ribavarin

NOW

• Most trials have no upper age limit
• All-oral treatments - no evidence of decline in efficacy with increasing age

Case 1

66 year women with know history of HCV, genotype 1b. Remote h/o IVDU when she was a teenager. Fibroscan score 7.8 kPa. Treatment naïve. No significant co-morbid diseases.

HCV G1, naive, stage 2

Should she be offered treatment?

Treat now or wait?

Treatment options?
HCV Therapy: Past, Present and Future

1990

- Ribavirin

2000

- Interferon

2005

- Proof of concept for DAA (PI)

2010

- Suppression of HCV with DAA combination (PI + NI)

2011

- Telaprevir and boceprevir

2012

- Frequent curability of diverse populations without IFN

2013

- Potential approval of other DAAs with IFN (eg, faldaprevir)

2014

- Approval of simeprevir and sofosbuvir with IFN

2015-

- First approved IFN-free therapy: SOF + RBV for GT2/3

IFN-free DAA combinations (GT1)
Efficacy With Sofosbuvir + P/R in Tx-Naive GT1/4/5/6 Patients: Phase III Trials

- Single-arm study of sofosbuvir + P/R for 12 wks

<table>
<thead>
<tr>
<th>SVR12 (%)</th>
<th>No Cirrhosis</th>
<th>Cirrhosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT1</td>
<td>92</td>
<td>80</td>
</tr>
<tr>
<td>GT4</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>GT5/6</td>
<td>80</td>
<td>60</td>
</tr>
</tbody>
</table>

SVR12 According to GT

SVR12 According to Fibrosis Level


COSMOS: Simeprevir + Sofosbuvir ± RBV in Genotype 1 HCV Patients

- Randomized phase IIa study

Simeprevir 150 mg QD; sofosbuvir 400 mg QD; weight-based RBV 1000-1200 mg/day.

Patients With GT1 HCV

- Cohort 1: Previous null responders, F0-F2 (N = 80)
- Cohort 2: Naives and previous null responders, F3-F4 (N = 87)

Simeprevir + Sofosbuvir + RBV (n = 30)
Simeprevir + Sofosbuvir (n = 16)

Wk 12
Wk 24


ION 3: SOF/LDV FDC ± RBV for 8 or 12 Wks in Tx-Naive Noncirrhotic GT1 Patients

- Open-label phase III trial
- Patients with cirrhosis excluded

BMS-791325
MK-5172 + MK-8742 20 mg + RBV
MK-5172 + MK-8742 50 mg + RBV
MK-5172 + MK-8742 50 mg

IFN-Free Therapy for Tx-Naive GT1 HCV: Regimens Effective in Both Subtypes

- AVIATOR: ABT-450/RTV + ABT-333 + ABT-267 + RBV
  - 12 wks
  - 24 wks
- LONESTAR: SOF/LDV FDC 8 wks
  - SOF/LDV + RBV 12 wks
- AVIATOR-1: Dacuvir + Asunaprevir + BMS-761325
  - 12 wks

C-WORTHY

100
96
90
88
84
80
76
72
68
64
60
56
52
48
44
40
36
32
28
24
20
16
12
8
4
0

COSMOS: Simeprevir + Sofosbuvir ± RBV in Genotype 1 HCV Patients

- Randomized phase IIa study

Patients With GT1 HCV
- Cohort 1: Previous null responders, F0-F2[1] (N = 80)
- Cohort 2: Naives and previous null responders, F3-F4[2] (N = 87)

![Diagram showing treatment groups and outcomes]

- Simeprevir + Sofosbuvir + RBV (n = 30)
- Simeprevir + Sofosbuvir (n = 16)
- Simeprevir + Sofosbuvir + RBV (n = 27)
- Simeprevir + Sofosbuvir (n = 14)

Simeprevir 150 mg QD; sofosbuvir 400 mg QD; weight-based RBV 1000-1200 mg/day.

COSMOS: SVR12 in Cohorts 1 and 2 by HCV Subgenotype and Baseline Q80K

**SVR12 (%)**

- **GT1b**
- **GT1a without Q80K**
- **GT1a with Q80K**

**Cohort 1 (F0-F2 Nulls)*[1]**

- **SMV/SOF + RBV**
  - 24 Wks: 100 100 89
  - 12 Wks: 100 100 89
  - Overall: 100 100 83

- **SMV/SOF ± RBV**
  - 24 Wks: 4/4 7/7 8/9
  - 12 Wks: 3/6 7/12 8/13
  - Overall: 6/13 7/10 8/10

**Cohort 2 (F3-F4 Naives/Nulls)*[2]**

- **SMV/SOF + RBV**
  - 24 Wks: 100 100 100 93
  - 12 Wks: 100 100 100
  - Overall: 100 100 100

- **SMV/SOF ± RBV**
  - 24 Wks: 4/4 7/7 4/4
  - 12 Wks: 5/5 13/14 7/8
  - Overall: 18/18 38/40 25/26

*Excluding patients who discontinued for nonvirologic reasons.

SAPPHIRE-1: Phase III Study in Treatment-Naive HCV GT1

ABT-450/RTV/ABT-267 FDC + ABT-333 + RBV for 12 Wks

GT1, Tx-naive, noncirrhotic pts (n = 473)

Placebo* (n = 158)

*Patients in placebo arm received active treatment following 12 wks of placebo.

Overall GT1a GT1b

SVR12 (%) 100 80 60 40 20 0

96 95 98

Case 1 – Rx Plan

Genotype 1, naive, stage 2

Wait and treat with INF-free option; available soon
Treat simeprevir/sofosbuvir
Treat simeprevir/sofosbuvir + PR
Patient preference

Case 2

72 year male with HCV genotype 1A. Received blood transfusion in 1962 following MVA. Never received treatment in past
Asymptomatic other than fatigue
Examination – spider angioma present
Labs: PC 98,000, LFP – normal
Fibroscan – 24 kPa

HCV G1, naive with cirrhosis

Questions:
Should I treat?
Treat now or wait?
Treatment options?

ION 1: SOF/LDV FDC ± RBV for 12 or 24 Wks in Treatment-Naive GT1 Patients

- Open-label phase III trial
- 15% to 17% of participants had cirrhosis

ION 1: SVR12 With 12 or 24 Wks SOF/LDV ± RBV in Tx-Naive Pts by Cirrhosis Status

TURQUOISE II: ABT-450/RTV/Ombitasvir + Dasabuvir + RBV in Cirrhotic GT1 Pts

- Open-label phase III trial
- Inclusion criteria: GT1, compensated cirrhosis (Child-Pugh A), DAA naive, radiographic ascites and varices permitted, serum albumin ≥ 2.8 g/dL, total bilirubin < 3 mg/dL, serum AFP ≤ 100 ng/mL, INR ≤ 2.3, platelets ≥ 60,000 cells/mL.
TURQUOISE II: SVR12 With 3 DAAs + RBV in Cirrhotic Pts by HCV Subtype

<table>
<thead>
<tr>
<th>HCV Subtype</th>
<th>GT1a</th>
<th>GT1b</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 wks</td>
<td>59/64</td>
<td>75/80</td>
</tr>
<tr>
<td>24 wks</td>
<td>14/15</td>
<td>15/18</td>
</tr>
</tbody>
</table>

- Virologic failure in 17/380 pts (4.5%); relapse more frequent with 12-wk vs 24-wk treatment (12 vs 1 pt), 7/12 relapsers by posttreatment Wk 12 were GT1a null responders


Case 2
HCV G1, naive with cirrhosis

Should I offer treatment? – Yes
Treat now or wait? – Now or in the near future; earlier the better

Options?
- Now – P/R/Simeprevir or sofosbuvir;
- off label simeprevir + sofosbuvir
Future – all oral regimens will be available

Case 3
70 yr male with HCV G1b, with cirrhosis based on liver biopsy, c/o intermittent RUQ discomfort and fatigue. H/o depression on medications stable. Treated with the past with interferon monotherapy, PR for 24 weeks, interferon and ribavarin for 72 weeks, P/R/Teleprevir 48 weeks.

HCV G1, cirrhosis, treatment experienced, PI failure

Efficacy of Simeprevir and/or Sofosbuvir in Previous Null Responders

Phase IIb Trial of Simeprevir + PegIFN/RBV

<table>
<thead>
<tr>
<th>Treatment</th>
<th>F0-2 Fibrosis</th>
<th>F3/4 Fibrosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMV + SOF + RBV</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>SMV 100 mg + PegIFN/RBV</td>
<td>93</td>
<td>96</td>
</tr>
<tr>
<td>SMV 150 mg + PegIFN/RBV</td>
<td>80</td>
<td>96</td>
</tr>
</tbody>
</table>

Placebo + pegIFN/RBV

- 24 Wks: 79, 86, 93
- 12 Wks: 79, 86, 93
- 12 Wks: 55, 100

SMV 100 mg + pegIFN/RBV

- 12 Wks: 25, 71

SMV 150 mg + pegIFN/RBV

- 12 Wks: 71

SVR12 (%)

- F0-2 Fibrosis: 100, 80, 60, 40, 20, 0
- F3/4 Fibrosis: 92.2, 92.9, 93.3, 100, 100, 100


12-Wk IFN-Free Regimens in GT1 Treatment-Experienced Patients


ION 2: SOF/LDV FDC ± RBV for 12 or 24 Wks in Treatment-Experienced GT1 Pts

- Open-label phase III trial
- 20% of participants had cirrhosis, 43% to 46% were previous nonresponders, and 41% to 61% had failed a PI

Sofosbuvir/ledipasvir 400/90 mg FDC tablet once daily; weight-based RBV 1000-1200 mg/day.

- Treatment-experienced pts with HCV GT1 (N = 448)
- SOF/LDV (n = 109)
- SOF/LDV + RBV (n = 111)
- SOF/LDV (n = 109)
- SOF/LDV + RBV (n = 111)

ION 2: SVR12 With 12 or 24 Wks of SOF/LDV ± RBV by Cirrhosis Status

- SVR12 rates were significantly lower in cirrhotic vs noncirrhotic patients in the pooled 12-wk arms


<table>
<thead>
<tr>
<th>Cirrhosis</th>
<th>No cirrhosis</th>
</tr>
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<tbody>
<tr>
<td>83/87</td>
<td>19/22</td>
</tr>
<tr>
<td>89/89</td>
<td>18/22</td>
</tr>
<tr>
<td>86/87</td>
<td>22/22</td>
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ION 2: SVR12 With 12 or 24 Wks SOF/LDV ± RBV by Treatment History

- Virologic failure: 1 breakthrough in 24-wk SOF/LDV/RBV due to nonadherence; 11 relapses (7 in 12-wk SOF/LDV, 4 in 12-wk SOF/LDV/RBV)
- 14% of patients had NS5A resistance-associated variants at baseline; 89% of these achieved SVR12

Failure on pegIFN/RBV
Failure on PI

<table>
<thead>
<tr>
<th>12 Wks</th>
<th>24 Wks</th>
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</thead>
<tbody>
<tr>
<td>LDV/SOF</td>
<td>LDV/SOF + RBV</td>
</tr>
<tr>
<td>93/49</td>
<td>93/49</td>
</tr>
<tr>
<td>96/44</td>
<td>96/44</td>
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<td>62/62</td>
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<td>62/53</td>
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<tr>
<td>58/58</td>
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Options for Patients Who Did Not Respond to PI Therapy

- Simeprevir/sofosbuvir (check Q80K)
- Wait and treat with next generation DAA’s

Case 3
HCV G1, cirrhosis, treatment experienced, PI failure

Treatment options:
Simeprevir/sofosbuvir (check Q80K)
Wait and treat with next generation DAA’s

Case 4
75 year women HCV G2, asymptomatic, Fibroscan median 8.8 kPa. Previously treated with P/R and relapsed

GT2, no cirrhosis, relapser
Efficacy of Sofosbuvir in GT2

Case 5

70 yr women with HCV G3, naive, with clinical and radiograph evidence of cirrhosis interested in being considered for HCV treatment

HCV G3, cirrhosis, naive

Efficacy Summary With SOF + RBV in GT3 Patients

LONESTAR-2: PegIFN/RBV + SOF x 12 Wks in GT2 or GT3 Patients

Sustained Virologic Response Rates in Elderly with sofosbuvir-based regimens

Case 6

66 year women, HCV G1a, remote history of breast cancer. Known h/o cirrhosis with ascites, now well controlled with diuretics. Labs: PC 62,000, TB 2.1, Alb 2.8, INR 1.4

HCV G1a, naive, decompensated cirrhosis

-- Treat with off-label Simeprevir and Sofosbuvir
-- Wait for newer DAA
Sustained Virologic Response Rates in Elderly with ledipasvir/sofosbuvir (LDV/SOF) +/- ribavirin

From Phase 3 LDV/SOF studies in GT1 HCV treatment-naïve and previously-treated individuals.
8% (152/1952) were ≥65 years of age at baseline.

Summary

- SVR rates > 90% with DAA
- 12 weeks sufficient in G1 and G2; will 6-8 weeks work?
- Dispensability of RBV may depend on the regimen
- “Leveling of playing field” between G1a and G1b, different IL28B genotypes, and naives vs nonresponders
- IFN may retain a role in GT3 patients in short term
- More data needed to assess whether treatment regimens need to be customized in cirrhotics (eg, additional agents, longer treatment duration)