Management of hepatitis C in complex patients: alcohol, mental health, HIV and HBV co-infection

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medical centers for comprehensive addiction medicine
HIV care

viral hepatitis therapy

mental health care

substitution

HIV care

primary health care

social work
mental co-morbidity in heroin patients

- schizophrenia
- depression
- anxiety disorders
- eating disorders
- personality disorders
- ADHS
- total

Bruggmann, 2009
HCV treatment outcome and dropout rates in mental co morbid patients

<table>
<thead>
<tr>
<th></th>
<th>SVR: sustained viral response</th>
<th>Major Depression</th>
<th>Dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td>psychiatric (n = 22)</td>
<td>50%</td>
<td>23%</td>
<td>9%</td>
</tr>
<tr>
<td>methadone+psychiatric (n = 18)</td>
<td>72%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>former drug abuse+psych. (n = 13)</td>
<td>54%</td>
<td>23%</td>
<td>15%</td>
</tr>
<tr>
<td>controls (n = 17)</td>
<td>59%</td>
<td>32%</td>
<td>6%</td>
</tr>
</tbody>
</table>

SVR: sustained viral response = durable elimination of virus
viral infections prevalence in our methadone patients

ARUD 2009, unpublished data
substance users and their liver
Liver related mortality

- HCV related mortality estimated to triple by 2030
- 1995-2004: HCV related mortality increased 123%
- in ARUD Zurich patients
  - 2005-2008: 51 death
  - 30% liver related (end stage liver disease)
  - 2008: 45% liver related

→ Hepatitis C is an important cause of premature mortality

Davis GL, Liver Transpl 2003
Wise M, Hepatology 2008
Bruggmann 2009, unpublished data
HCV–HIV co-infection accelerates liver fibrosis / cirrhosis

HCV–HIV co-infected patient

normal liver cells  cirrhosis

6.9 years

23.2 years

HCV mono infected patient

Soto B, et al. J Hepatol 1997; 26: 1
End stage liver disease: a major cause of death in HIV patients

mortality in a cohort of 23,441 patients under ART

61% co infected with HCV
Chronic HBV/HCV Coinfection

Liver rel mortality

HCC: hepatocellular carcinoma = liver cancer

HCV/ HBV (n=2604)
HBV (n=39109)
HCV (n=75834)
# Treatment response

<table>
<thead>
<tr>
<th>Author</th>
<th>HCV/HBV</th>
<th>N</th>
<th>Tx</th>
<th>SVR HCV</th>
<th>SVR HBV</th>
<th>HBV-React</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liu</td>
<td>HCV/HBV</td>
<td>21</td>
<td>INF tiw/ Riba</td>
<td>43%</td>
<td>nr</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>HCV</td>
<td>30</td>
<td>24 wks</td>
<td>60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hung</td>
<td>HCV/HBV</td>
<td>36</td>
<td>INF tiw/ Riba</td>
<td>69%</td>
<td>11%</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>HCV</td>
<td>72</td>
<td>24 wks</td>
<td>71%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potthoff</td>
<td>HCV/HBV</td>
<td>19</td>
<td>PEG/ R48wks</td>
<td>74%</td>
<td>33%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Hung et al J Gastroenterol Hepatol 2005;20:727-32  
Alcohol and SVR in recent drinkers

Table 6. Effect of Drinking in the Past Year on SVR Rates in Patients Who Discontinued Treatment Early and Those Who Completed the Full Course of Treatment With Interferon and Ribavirin

<table>
<thead>
<tr>
<th>SVR rates</th>
<th>Nondrinker (n = 395)</th>
<th>≤2 drinks/day (n = 42)</th>
<th>&gt;2 drinks/day (n = 64)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients who completed full course of treatment</td>
<td>100 (25)</td>
<td>11 (26)</td>
<td>15 (23)</td>
<td>NS</td>
</tr>
<tr>
<td>Patients who had early treatment discontinuation</td>
<td>5 (1)</td>
<td>2 (5)</td>
<td>0 (0)</td>
<td>NS</td>
</tr>
</tbody>
</table>

NOTE. Values in parentheses indicate percentages rounded off to the closest value.

- Recent drinkers able to complete a full course of therapy:
  → Same SVR as non drinkers

Anand, 2006
Treatment setting

% SVR

multidisciplinary care

gastroenterologist

Addiction clinic

substitution
psychiatrist
internist
nurse
social worker
lab

network

hepatologist

substitution

prisons

psychiatrist

nurses

GP
Substitution with Heroin, Methadone, Buprenorphine and long acting morphine

psychiatrists
primary health care by GP's
HIV and hepatitis C therapy
psychologists
social worker
nurses
Conclusion

- The hardest to treat are the most urgent to treat

- Adherence is a very important issue of successful HCV therapy in complex patients

- Collaboration is needed between all health care professionals involved to improve HCV situation in substance users
Thank you for your attention

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