Management of viral Hepatitis in Hematology Patients

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Chairs of the session at ECIL meeting (September, 19-21, 2013)
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### CDC Grading system used for these guidelines

<table>
<thead>
<tr>
<th>Quality of evidence</th>
<th>Strength of recommendations</th>
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<tbody>
<tr>
<td>I  Evidence from $\geq$ 1 properly randomized, controlled trial</td>
<td>A <strong>Good evidence</strong> to support a recommendation for or against use</td>
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<tr>
<td>II Evidence from $\geq$ 1 well-designed clinical trial, without randomization; from cohort or case-controlled analytic studies (preferably from $&gt;1$ center); from multiple time-series studies; or from dramatic results from uncontrolled experiments</td>
<td>B <strong>Moderate evidence</strong> support a recommendation for or against use</td>
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<tr>
<td>III Evidence from opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees</td>
<td>C <strong>Poor evidence</strong> to support a recommendation</td>
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*Adapted from Canadian Task Force on the Periodic Health Examination*  
*Walsh et al. CID 2008; Pappas et al. CID*
Screen patients for viral hepatitis before Stem Cell Transplant (SCT) / chemoTx

• All patients should be screened for HCV before SCT/chemotherapy (A II)
  • Anti-HCV antibodies and RNA if positive
  • RNA in Anti-HCV negative antibodies patients with risk factors of acute/chronic HCV infection
  • RNA should be the preferred method before SCT

• All patients should be screened for HBV before SCT/chemotherapy (A I)
  • HBsAg, anti-HBc antibodies, DNA if one positive, anti-HBs antibodies, Delta if HBsAg-positive

• All patients should be considered for anti-HAV IgG antibodies screening (B III)
Screen SCT donors for viral hepatitis

- Anti-HCV antibodies, RNA in the presence of risk factors
- HBsAg, anti-HBc antibodies, DNA if one positive, anti-HBs antibodies
General recommendations for hematology patients

All patients with suspected viral hepatitis should undergo expert liver evaluation before chemotherapy / SCT (AIII)
Acute hepatitis during SCT/chemotherapy: Screening recommendations

• HBsAg, DNA (A II)

• Other viruses to be considered include (A III)
  • ADV/CMV/EBV/HSV/VZV (ECIL3-4)
  • HEV RNA
  • Anti-HAV IgM antibodies
  • HCV RNA
Hepatitis A Virus
HAV in the setting of hematology

• SCT is not recommended if viremic donor/recipient (Zaia J. et al. BMT 2009)

• Vaccination should be considered in HAV IgG antibody-negative patients at risk (B II)
HCV as cause of hematologic malignancy

O. Hermine (France)
HCV as a cause of malignancy: Recommendations

• Patients with a B-cell NHL should be screened for HCV regardless of planned chemotherapy (AII)

• Eradication of HCV should be attempted in case of HCV-associated B-cell NHL (A II)
HCV in hematological malignancy

C. Doerig and D. Moradpour
(Switzerland)
HCV in hematological malignancy: Recommendations

• Allogeneic SCT recipients with an HCV RNA-positive donor can be considered if other donor options are deemed to be inferior (B III)

• For HCV-infected patients, expert liver monitoring is recommended after SCT (A III)
Hepatitis B Virus

F. Van Bommel (Germany)
HBV in hematology patients

Recommendations

• All HBV DNA-positive patients should be evaluated by an expert (A II)

• Vaccination of HBV seronegative patients should be considered (B III)

• An HBsAg-negative and anti-HBc-antibody-negative recipient receiving an HBc-antibody-positive graft should receive antiviral therapy (A III)
  • Adding HBIG could be considered in this setting (B III)
HBV in hematology patients
Recommendations

• All HBsAg-positive patients should receive antiviral therapy (A I)
• In the setting of SCT, all HBc-positive patients should receive antiviral therapy (A I)
• With depleting antibodies, all HBc-positive patients should receive antiviral therapy (A II)
• Antiviral therapy should be administered during treatment and for 12 months after cessation of therapy (AI)
Choice of Antiviral Therapy and Monitoring

- Choice of therapy affected by HBV DNA level (AI)
  - HBV DNA < 2000 IU/mL: any therapy can be used (including lamivudine)
  - HBV DNA > 2000 IU/mL: entecavir or tenofovir
- Choice of therapy affected by duration of therapy
  - > 12 months: entecavir or tenofovir (AII)
- HBV DNA and ALT should be monitored every 3 months (BII).

Hepatitis E Virus

S. Pischke and H Wedemeyer
(Germany)
Recommendations

• Compromised patients should be informed about the risks of foodborne transmission of HEV (A III)
• For patients with chronic HEV, reduction of immunosuppressive drugs should be considered (B III)
• For patients with chronic HEV, antiviral therapy with ribavirin should be considered (B III)
Conclusions

• Hepatotropic viruses are prevalent in the setting of hematologic diseases
• Compromised hosts are at risk of complications
• Expert liver evaluation is mandatory in patients harboring markers of viral hepatitis
Unanswered questions

• Define the relationship between liver fibrosis and outcome of SCT?

• Define the best conditioning regimen(s) in patients with compensated chronic liver disease?