Management of viral Hepatitis in Hematology Patients

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Chairs of the session at ECIL meeting
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CDC Grading system used for these guidelines

Quality of evidence	Strength of recommendations
I Evidence from ≥ 1 properly randomized, controlled trial	A **Good evidence** to support a recommendation for or against use
II Evidence from ≥ 1 well-designed clinical trial, without randomization; from cohort or case-controlled analytic studies (preferably from >1 center); from multiple time-series studies; or from dramatic results from uncontrolled experiments	B **Moderate evidence** support a recommendation for or against use
III Evidence from opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees	C **Poor evidence** to support a recommendation

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).

EASL. J Hepatol. 2012;57:167-85. Lok AS, et al. Hepatology. 2009;50:661-662.

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?