Stopping Prophylactic Antiviral Therapy after Remission, Between the Lack of Attention and the Lack of Clear Guidelines

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Introduction

- Prophylactic antibiotherapy in general and especially antiviral plays an important role during treatment and after remission of hematologic malignancies.
- During chemotherapy, the prophylactic antiviral therapy is well prescribed usually.
- However, after remission, its discontinuation becomes more anarchic in the absence of clear guidelines and good assessment.
- Herein, we present an interesting case about the importance of continuing the prophylactic antiviral therapy after remission and the risk of stopping it earlier.

Picture showing the central and peripheral spread of the Varicella Zoster infection¹

Case Presentation

- A 64-year-old male patient presented to the emergency department for one-week history of left facial palsy, headache, hypoacusis, low grade fever, impaired sense of taste, dry mouth, decreased appetite, episodes of confusion and asthenia.
- Five months earlier, he was treated for hairy cell leukemia with Cladribine with complete remission and.
- Antiviral prophylaxis by Acyclovir was stopped shortly after the chemotherapy without a monitoring of lymphocytes count or CD4 count.
- Physical examination showed peripheral left facial palsy, evidence of hypoacusis and left external ear crusted lesion described by the patient as being a vesicle few days before.
- Normal CT-scan of the brain.
- Viral serology showed a positive titer for Herpes zoster IgM. CBCD was nearly normal except for a total Lymphocyte count of 650/ μ L and a CD4 count of 65/ μ L.
- MRI of the brain confirmed the diagnosis of leptomeningitis with no evidence of ischemic events.
- He was started on intravenous Acyclovir for viral meningitis with multiple cranial nerves involvement. He had a partial improvement of his symptoms.
- Nevertheless, the patient kept some neurological sequelae especially the facial palsy and hypoacusis.
- The patient continued with Valacyclovir PO for many months until the lymphopenia and CD4/CD8 counts were normalized.

Cytology of the cerebrospinal fluid of the patient showing the presence of lymphocytes (see arrows)

- Due to the clinical presentation, a lumbar puncture was done. It showed high protein level, white cells 66/ μ L with 98% lymphocytes and normal glucose. PCR for herpes Zoster came back positive.

Axial and sagittal cuts in FLAIR sequence showing important hyper-intensity involving the supratentorial occipital sulcus mainly, suggestive of lepto-meningitis

Discussion

- Varicella-zoster virus (VZV) is an exclusively human, ubiquitous neurotropic α -herpesvirus.
- With a decline in virus-specific cell-mediated immunity, virus reactivates peripherally or centrally to cause a variety of symptoms and presentations¹.
- Cell and humoral-mediated immunity remains affected after finishing chemotherapy especially in hematological malignancies and thus predisposing the patient to possible reactivation.
- The rational of continuing an antiviral prophylactic therapy might be of great benefit.
- CD4+ T-cell levels monitoring and the continuation of antiviral prophylaxis until the count is above 200/ μ L is recommended.²
- However, there are no randomized trials for this strategy and there is a need to conduct trials concerning this issue.

Conclusion

- This case shows the importance of antiviral prophylaxis even after remission.
- Timing to stop it should be guided by the immunological status of the patient, best reflected by absolute lymphocytes and CD4 counts,
- Whether by studies or experts' opinions, there is a need to put some guidelines concerning this subject to avoid the risk of such infectious complications.

References

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