Rare case of acquired Hemophilia A secondary to immune checkpoint inhibitors in a 52 years old Lebanese Women: A Case Report

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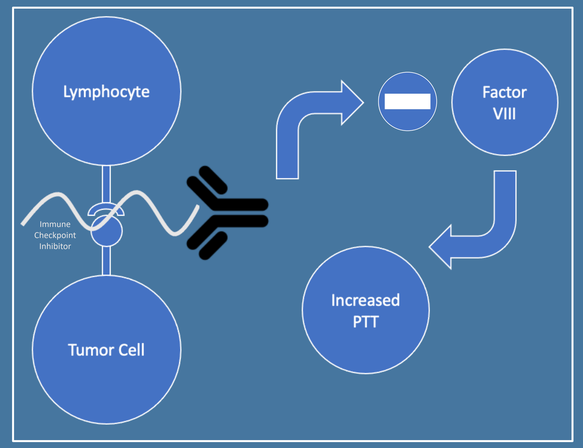
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Introduction

Immune checkpoint inhibitors have been an effective component of the arsenal against different malignancies.

Along with their effectiveness comes a list of side effects reported and studied ranging from immune-related dermatological, gastrointestinal, and neurological to almost any organ system.

The onset of hematological manifestation secondary to immune checkpoint inhibitors is a scarce finding but should not be neglected as they can lead to severe bleeding such as in acquired Hemophilia A.



Case Report

This is the case of a 52 years old female patient, a heavy smoker, diagnosed with stage IV lung adenocarcinoma, PD-L1 90%, EGFR wild type, ALK and ROS 1 negative, for which she was started on an immune checkpoint inhibitor.

After her second cycle, she presented to the Emergency Department for gynecological bleeding. Investigations revealed no uterine or endometrial tumor with normal laboratory tests except for a prolonged PTT of 95 seconds.

Mixing studies were performed and resulted in no correction, confirming the presence of an inhibitor. The inhibitor turned out to be a factor VIII inhibitor for which a full work-up was undergone to find the potential cause.

After excluding all potential causes, it was concluded to have occurred secondary to the checkpoint inhibitor. She was started on high-dose steroids 1 mg/kg which resulted in the normalization of her PTT.

Discussion

Acquired Hemophilia A has many sources of origin including autoimmune diseases, solid or hematological malignancies, inflammatory bowel diseases, diabetes mellitus, hepatitis B and C, drug-associated, and many other diseases.

The occurrence of such diagnosis secondary to immune checkpoint inhibitor is an especially rare finding with few cases being reported in the literature.

Confirming the etiology as drug-induced depends on a diagnosis of exclusion, requiring to rule out any potential underlying illness. Diagnosis is followed by a prominent response including a high-dose steroid regimen to counteract the immune-mediated coagulation disease.

Conclusion

Although anti-factor VIII acquisition secondary to immune checkpoint inhibitor is a rare entity, physicians must be aware of this potential complication and its manifestations.

Early recognition with proper workup and treatment will allow proper control and prevent any risk to the patient's health.

Factor VIII deficiency Treatment

- Immune Tolerance Induction
- Immunoabsorption
- Cyclophosphamide
- IV immunoglobulins
- Corticosteroids
- Rituximab
- Immunosuppressants