Characterization of immune checkpoint inhibitor-related cardiotoxicity in lung cancer patients from a rural setting

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INTRODUCTION
• Immune checkpoint inhibitor (ICI)-related cardiotoxicities (ICIs) are rare. However, recent literature have described major adverse cardiac events (MACE) such as myocarditis, pericardial disorders, cardiomyopathies and dysrhythmias as potential fatal adverse effects in patients receiving ICIs.
• The cardiotoxic profile of ICIs is not well defined. Our study aimed to characterize ICIs in lung cancer patients of a rural population at a tertiary care center.

METHODS

RESULTS

DISCUSSION
• ICIs are rare though can manifest as a spectrum of cardiotoxicities. Majority of these toxicities appear to be grade 3 toxicities (severe undesirable adverse reaction requiring hospitalization or invasive intervention).
• Elevated NLR is an inflammatory marker that has been associated with poor prognosis in cancer and mortality in cardiovascular disease. We demonstrate an increased NLR in correlation with an elevated CRP during the time of suspected IC, suggesting its utility in diagnosing IC.
• ICIs may be underrepresented in clinical trials and further studies describing this syndrome (ECG and echocardiographic findings), diagnostic work up and surveillance are warranted.
• Larger datasets to identify potential predictors that may guide optimal use of these events are encouraged.

ACKNOWLEDGEMENTS

REFERENCES

DISCLOSURES

Table 1. Demographics and baseline characteristics of control and patients with ICI-related cardiotoxicities (ICIs).

Table 2. Comparison of laboratory values in lung cancer patients with no MACE (174) versus with a MACE (n=23).

Table 3. Comparison of laboratory values, ejection fraction, PR interval and QTc interval at baseline and at the time of suspected MACE (n=23).

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