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Please note: Dr. Patanè has reported that he has no relationships relevant to the contents of this paper to disclose.

REFERENCES

1. Mazzanti A, Maragna R, Vacanti G, et al. Interplay between genetic substrate, QTc duration, and arrhythmia risk in patients with long QT syndrome. J Am Coll Cardiol 2018;71:1663–71.

2. Lian J, Guo J, Huang X, et al. miRNAs regulate hERG. J Cardiovasc Electrophysiol 2016;27:1472–82.

3. Zhao Y, Huang Y, Li W, et al. Post-transcriptional regulation of cardiac sodium channel gene SCN5A expression and function by miR-192-5p. Biochim Biophys Acta 2015;1852 10 pt A:2024–34.

4. Ding Y, Sun X, Shan PF. MicroRNAs and cardiovascular disease in diabetes mellitus. Biomed Res Int 2017;2017:4080364.

5. Li Y, Yang CM, Xi Y, et al. MicroRNA-1/133 targeted dysfunction of potassium channels KCNE1 and KCNQ1 in human cardiac progenitor cells with simulated hyperglycemia. Int J Cardiol 2013;167:1076–8.

Immunosuppression Does Not Reduce Antitumor Efficacy

I read with great interest the paper by Mahmood et al. (1). The authors conducted a very valuable and interesting study of 35 patients with immune checkpoint inhibitor (ICI)-associated myocarditis compared with 105 ICI-treated patients without myocarditis in a multicenter registry with 8 sites. The study found that myocarditis developed at a median of 34 days in patients receiving ICIs for the treatment of cancer. Moreover, the authors indicated that there were higher serum troponin levels and major adverse cardiac event rates with the use of lower steroid doses; higher steroid doses were associated with lower serum troponin levels and major adverse cardiac event rates in ICI-treated patients with myocarditis.

Immunotherapeutic strategies with ICIs have been shown to have benefits in patients with cancer. However, one major question is always of concern in treating ICI-related adverse events: will the use of systemic immunosuppression reduce the antitumor efficacy? In a retrospective analysis by Horvat et al. (2) of 298 patients with melanoma who received ipilimumab, the authors found that 254 (85%) patients had an immune-related adverse event; 35% of patients required a systemic corticosteroid treatment, and ~10% of patients needed a further immunosuppression with anti-tumor necrosis factor-α therapy. Their data showed that systemic corticosteroid treatment for immune-related adverse events does not affect the time to treatment failure and overall survival. Furthermore, in another retrospective study of 576 patients with advanced melanoma to assess the safety of nivolumab, Weber et al. (3) found that 71% of patients had immune-related adverse events; ~24% of patients required systemic immune-modulating agents. The results in this study showed that objective response rates were not significantly different between patients who received suppressive immune-modulating agents compared with patients who did not.

Clinicians should therefore realize that the overall outcomes in patients receiving ICI with immune-related adverse events who are treated with immunosuppressive agents are no worse than patients who did not receive systemic immunosuppression. However, prospective studies testing the use of systemic immunosuppression are required to clear this concern that would bring more benefits in treating ICI-related adverse events for patients with cancer.

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REFERENCES

1. Mahmood SS, Fradley MG, Cohen JV, et al. Myocarditis in patients treated with immune checkpoint inhibitors. J Am Coll Cardiol 2018;71:1755–64.

2. Horvat TZ, Adel NG, Dang TO, et al. Immune-related adverse events, need for systemic immunosuppression, and effects on survival and time to treatment failure in patients with melanoma treated with ipilimumab at Memorial Sloan Kettering Cancer Center. J Clin Oncol 2015;33:3193–8.

3. Weber JS, Hodi SF, Wolchok JD, et al. Safety profile of nivolumab monotherapy: a pooled analysis of patients with advanced melanoma. J Clin Oncol 2017;35:785–92.