**New Onset or Deterioration of Thyroid Eye Disease After mRNA SARS-CoV-2 Vaccines: Report of 2 Cases and Literature Review**

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**Context**

Occurrence of Graves’ disease (GD) has been reported following SARS-CoV-2 vaccine administration, but little is known about thyroid eye disease (TED) after SARS-CoV-2 vaccination.

**Objective**

We describe 2 cases of TED activation following mRNA SARS-CoV-2 vaccination and review additional cases reported in the literature.

**Methods**

We report 2 cases of TED activation following SARS-CoV-2 vaccination: 1 case of TED worsening in a patient with GD, and 1 of de novo active TED progressing to dysthyroid optic neuropathy in a patient with a history of Hashimoto hypothyroidism. Our literature search revealed 8 additional reported TED cases associated with SARS-CoV-2 vaccination until June 2022. We review the characteristics, duration, and management of TED following SARS-CoV-2 vaccination in these cases.

**Results**

Of all 10 reported TED cases following SARS-CoV-2 vaccination, 4 developed new-onset TED and 6 previously stable TED cases experienced significant deterioration. Six patients had known GD and 2 patients had Hashimoto thyroiditis. Two cases progressed to dysthyroid optic neuropathy, 6 had moderate/severe active disease, and 2 had mild disease that did not require treatment. Seven TED cases received teprotumumab and had a favorable response, 2 of whom had prior limited response to initial prednisone or methylprednisolone and tocilizumab therapy.

**Conclusion**

New diagnosis or deterioration of TED after mRNA SARS-CoV-2 vaccination can occur, with most cases described in patients with underlying autoimmune thyroid disease. Our report raises awareness to this potential complication to promote early recognition and prompt management of TED associated with mRNA SARS-CoV-2 vaccines. Further studies are needed to explore the mechanism, risk factors, prevention, and treatment of TED following mRNA SARS-CoV-2 vaccination.

mRNA SARS-CoV-2 vaccine, autoimmune thyroid disease, thyroid eye disease, teprotumumab, Graves’ orbitopathy