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## Clinical Communications: Adult

### Guillain-Barré Syndrome Presenting as Facial Diplegia after COVID-19 Vaccination: A Case Report

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**Abstract—Background:** Guillain-Barré Syndrome (GBS) is a rapidly progressive immune-mediated polyneuropathy often associated with an antecedent infectious illness or vaccination. The classic presentation of GBS is characterized by ascending limb weakness and numbness with loss of reflexes. However, atypical variants involving the face and arms or with purely sensory symptoms also exist. In up to 30% of cases, GBS progresses to respiratory failure, with patients requiring mechanical ventilation. **Case Report:** We report a case of atypical GBS occurring after Coronavirus disease 2019 (COVID-19) vaccination in an otherwise healthy 38-year-old man. The patient’s clinical presentation was characterized by bilateral hand and foot paresthesias, dysarthria, bilateral facial weakness, and an absence of classic ascending limb weakness. Albuminocytological dissociation within the cerebrospinal fluid was suggestive of GBS. The patient received intravenous immunoglobulin therapy, with modest improvement in his symptoms at the time of his discharge from the hospital. **Why Should an Emergency Physician Be Aware of This?** Patients with GBS are at risk for life-threatening complications, including respiratory failure requiring mechanical ventilation. It is critical for emergency physicians to be aware of the manifold presentations of GBS for early recognition and treatment. This may be of particular importance in the context of a worldwide vaccination campaign in response to the COVID-19 pandemic. © 2021 Elsevier Inc. All rights reserved.

**Keywords—**Guillain-Barré Syndrome (GBS); facial diplegia; CN-VII palsy; COVID-19 vaccination; dysarthria

#### Introduction

Guillain-Barré Syndrome (GBS) is a rapidly progressive immune-mediated polyneuropathy often associated with an antecedent infectious illness or vaccination. Classically, the syndrome is characterized by symmetric paresthesias, weakness of the extremities, or diminished or absent reflexes. Atypical variants involving the face and arms, or with purely sensory symptoms, have also been identified [1]. In up to 30% of cases, GBS progresses to respiratory failure, with patients requiring mechanical ventilation [2]. Therefore, it is critical for emergency physicians to rapidly recognize the signs and symptoms of this disorder for timely diagnosis and initiation of treatment. Most patients will require admission for expedited workup, initiation of immune-modulatory therapy, and monitoring for respiratory compromise. We report a case of an atypical presentation of GBS presenting with extremity paresthesias, dysarthria, and bilateral facial weakness in the absence of classic ascending limb weakness, and discuss differential diagnosis, triage, and management.

<sup>1</sup>Authors Arianna Rossetti, MS PA-C and Galina Gheihman, MD completed the intellectual and other work typical of the first author.