

## CASE REPORT



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\* **Corresponding author.**

[mkhalid79.med@gmail.com](mailto:mkhalid79.med@gmail.com)

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## Post Covid Guillian-Barre Syndrome

**Mohammed Khalid<sup>1\*</sup>, Tariq Karim<sup>2</sup>**

<sup>1</sup> Specialist Internal Medicine, Amina Hospital, Ajman, United Arab Emirates

<sup>2</sup> Consultant Internal Medicine, Amina Hospital, Ajman, United Arab Emirates

### Abstract

Guillain-Barre Syndrome (GBS) is a rare complication of COVID-19. We report a case of 41-year-old lady who presented with GBS with variant of multiple cranial neuropathies. Supportive care is important in these patient due to the risk associated with respiratory failure and autonomic dysfunction with potential severe cardiovascular involvement. IV immunoglobulin is as effective as plasmapheresis in the treatment of GBS<sup>(1)</sup>

**Keywords:** Guillian Barre Syndrome (GBS); IV Immunoglobulin; Plasmapheresis

### Introduction

Neurological complications are common, especially in hospitalized patient<sup>(2)</sup>. They fell mainly into three categories. Central nervous system manifestation (headache, dizziness, impaired consciousness, cerebrovascular accidents, seizures and ataxia), Peripheral nervous system manifestation (like smell impairment, vision impairment, nerve pain and taste impairment) and skeletal muscular injury manifestations<sup>(2)</sup>. The underlying mechanism is diverse and in some cases multi-factorial. Neurological complications are arisen from direct effect of virus as well as systemic response to infection<sup>(3)</sup>. We hereby report an interesting case of GBS with variant of multiple cranial neuropathy post COVID-19.

### Case report

A 41-year-old lady presented to ER with facial weakness, inability to close right eye with drooling of saliva. She has no

significant past history apart from being diagnosed with COVID-19 one month ago. She was diagnosed as bell's palsy and started on steroid and acyclovir. A couple of days later she was presented to OPD with generalized weakness. On examination, she had lower motor neuron type facial palsy and 12<sup>th</sup> nerve palsy with fasciculation and deviation of tongue to right side. There was loss of sensation to pain and temperature in both lower limbs. Also, loss of vibration and position sense. Power in both upper and lower limbs was 3/5. On deep tendon reflex examination there was generalized areflexia. There was worsening in the power over subsequent period. Her CSF analysis and nerve conduction velocity was consistent with GBS. Patient was started on IV immunoglobulin, there was a remarkable improvement in 2 weeks time with complete recovery of motor and sensory system. This patient had GBS with variant of multiple cranial neuropathies. It is rare post COVID-19 complication.

## Discussion

GBS is infrequent complication of COVID-19. Five cases have been identified among 1200 patient admitted in three north Italian hospitals<sup>(4)</sup>. Most patients with GBS with COVID-19 presented with progressive ascending limb weakness over one to four days. The onset of weakness due to post viral illness is about 5 to 10 days which is similar to its onset compared to other viral illness associated with GBS. The diagnosis of GBS should be considered in setting of progressive limb weakness and also chest findings are not commensurate with respiratory insufficiency<sup>(4)</sup>. IV immunoglobulin is as effective as plasmapheresis in the treatment of GBS<sup>(1)</sup>. IV immunoglobulin is given at dose of 0.4mg/kg for 5 days. The side effects include rash, aseptic meningitis, acute renal failure and rarely hyperviscosity syndrome leading to stroke. IgA deficiency can lead to anaphylaxis<sup>(5)</sup>.

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