



# Atypical Presentation of Guillain-Barré Syndrome

Mehmet İbrahim Turan, Ömer Özden, Esra Disci, Hüseyin Tan

## ABSTRACT

*Guillain-Barré syndrome is postinfectious polyneuropathy involving mainly motor but sometimes also sensory and autonomic nerves. We report a case of 11 years old boy who admitted with walking problem, voice hoarseness and sore throat problem that associated with partial vocal cord paralysis. We emphasize that hoarseness may be the initial symptom of the Guillain-Barré syndrome.*

**Key words:** Guillain-Barre syndrome, child, hoarseness

## Guillain-Barré Sendromunun Atipik Şekli

### ÖZET

*Guillain-Barré Sendromu, genellikle motor nöronları fakat bazende duyuşal ve otonomik sinirleride etkileyen bir postinfeksiyöz polinöropatidir. Burada yürüme problemi, parsiyel vokal kord paralizisinin eşlik ettiđi ses kısıklığı ve boğaz ağrısı şikayetiyle başvuran 11 yaşında erkek hasta sunuldu. Ses kısıklığının Guillain-Barré sendromunun ilk semptomu olabileceđini vurgulamak istedik.*

**Anahtar kelimeler:** Guillain-Barré sendromu, çocuk, ses kısıklığı

## INTRODUCTION

Guillain-Barré syndrome (GBS) is postinfectious polyneuropathy involving mainly motor but sometimes also sensory and autonomic nerves. It can be acute or chronic in nature. It is acquired condition which is characterized by progresive, symmetrical, proximal and distal tingling and weakness (1). It is immune mediated and an inflamatory disorder of peripheral nerves system. Clinical hallmarks are symmetrical flaccid paresis and areflexia in the presence of an increased cerebrospinal fluid protein content (2).

We report a case of 11 years old boy who admitted with walking problem, voice hoarseness and sore throat problem. After admission, he developed areflexia and bilateral vocal cord paralysis determined. Finally, he was diagnosed with GBS. We emphasized that knowl-

edge of atypical presentations of GBS is important for early dignosis and appropriate management of treatment.

## CASE

The patient is 11 years old boy who was applied to pediatric neurology department because of walking problem which complained about his feet in recent onset of tingling and numbness. His symptoms began slowly following an upper respiratory tract infection that he had about 14 days prior. He also complained about voice hoarseness and sore throat before 14 days.

In neurological examination revealed positive bilateral gag reflex, swallowing reflex and normal tongue movement. Generalized muscle weakness of lower ex-

Department of Pediatric Neurology, Faculty of Medicine, Ataturk University, Erzurum, Turkey.

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Correspondence: Mehmet İbrahim Turan  
Department of Pediatric Neurology; Faculty of Medicine, Ataturk University,  
Erzurum 25240, Turkey.  
Tel: +905052604621 E-mail: turan78tr@hotmail.com

tremities was noted 3-4/5. The sensation was intact. Deep tendon reflexes of his upper and lower extremities was not taken. The bilateral partial vocal cord paralysis was determined with flexible laryngoscopy. A lumbar puncture was performed and showed total protein concentration to be 163 mg/dL and only 3 white blood cells/ $\mu$ L. Magnetic resonance imaging of the brain and total spine was normal. Electromyographic studies demonstrated; slowed motor nerve conduction velocities and prolonged distal latencies. He was treated by Intravenous immunoglobulin (IVIG) (0.6 mg/kg) along 5 days. After treatment, his muscle weakness improved and partial vocal cord paralysis recovered. The existing voice hoarseness and sore throat get better.

## DISCUSSION

Guillain-Barré syndrome is an acute paralysing disease that causes the rapid improvement of weakness and numbness of the limbs and often the facial, swallowing and breathing muscles. It is also known as a polyneuropathy, which is commonly due to multifocal inflammation of the peripheral nerves and spinal roots, especially their myelin sheaths. The weakness reaches its maximum level within a few days or up to four weeks. The etiology of GBS is still not known and under investigation. The favoured hypothesis is that it is due to an autoimmune response directed against antigens in the peripheral nerves that is triggered by a preceding bacterial or viral infection. A small amount of evidence suggests that intravenous immunoglobulin is also beneficial in children (3). We were treated our patient by IVIG (0.6 mg/kg) along 5 days. After treatment, his muscle strength get better. Involvement of the recurrent laryngeal nerve may lead to partial or complete vocal cord paralysis, which may further compromise the

airway and present as stridor. However, GBS presenting as stridor or voice hoarseness caused by bilateral vocal cord paralysis is extremely rare in the literature (4). In our case the patient has progressive voice hoarseness with sore throat and in physical examination, partial bilateral vocal cord paralysis was determined. After treatment of GBS, vocal cord paralysis was recovered. These findings should alert the physician to the possibility of GBS in cases of voice hoarseness or sore throat as a presenting symptom of upper airway diseases among the pediatric population.

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