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Case Report

Isolated Facial Diplegia as a Rare Variant of Guillain-Barré Syndrome in an Elderly Female: A Case Report

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Abstract

Guillain-Barre syndrome (GBS) is a common neurological condition characterized by progressive ascending weakness of limbs associated with paraesthesia and areflexia. Facial diplegia is a very rare variant of GBS. We present a 60-year-old female presenting with a history of tingling and numbness on the right side of her face, which progressed to the other side within a day. This was associated with occipital headache, slurring of speech, and inability to close her eyes. CSF (Cerebrospinal fluid) and NCV (Nerve conduction velocity) findings confirmed the diagnosis. The patient was started on intravenous immunoglobulin and other supportive care and showed significant improvement of symptoms in two weeks.

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INTRODUCTION

Guillain-Barre syndrome (GBS) is an autoimmune disorder characterised by progressive weakness of limbs associated with paraesthesia and areflexia. Occasionally, cranial nerve involvement is also seen, mostly presenting with facial or pharyngeal weakness. Unilateral facial palsy is relatively common, unlike bilateral palsy (facial diplegia), which is very rare [1]. We present a unique case of an elderly female with sudden onset of isolated bilateral facial diplegia as an atypical presentation of GBS.

CASE REPORT

A 60-year-old female, with no significant past medical or surgical history, presented with sudden-onset tingling and numbness of the right side of her face, which progressed to the other side within 24 hours. This was associated with occipital headache, slurring of speech, and inability to close both eyes completely. She was seen by a quack 10 days before, who prescribed her some painkillers. Her symptoms did not improve so she got admitted to our hospital. The symptoms had been persistent since their onset, and she had never had similar symptoms before. There was no history of trauma, earache, hearing difficulties, tinnitus, or any other weakness or numbness in other parts of the body. There was no history of any flu-like illness or gastrointestinal infection in the past month.

On examination, she was alert and oriented. Her vital signs (heart rate 83 beats per minute, blood pressure 117/69 mmHg, temperature 36.2 ℃, and respiratory rate 19 breaths per minute) were within normal. Higher mental functions were within the normal limits for her age. On general examination, showed no pallor or icterus. On neurological examination, there were no visual field defects or loss in visual acuity. The pupils appeared normal and were equally reactive to light. Bilateral lagophthalmos was present. Eye movements were normal with no diplopia. Bell's phenomenon was positive i.e. eyes rolled upwards when asked to close her eyes (Image 1). She was unable to clench her teeth or blow. Frowning of her forehead and nasolabial folds were bilaterally inapparent. Sensation of the face, palatal tongue movements, head rotation, shoulder shrug, and jaw strength were all intact. Ankle jerk was absent bilaterally, while other deep tendon reflexes were decreased. There was no motor or sensory deficit in the upper and lower limbs. The rest of the systemic examination was unremarkable.

Investigation

Routine blood examinations (complete blood count, C-reactive protein, liver and renal function tests) were normal. Anti-neutrophil antibody (ANA) and angiotensin converting enzyme (ACE) assay were negative. Cerebrospinal fluid (CSF) analysis showed elevated total protein (109 mg/dL), normal sugar (52 mg/dl), few degenerated cells and negative for culture. No cranial pathology was detected in CT (Computer tomography) and MRI (Magnetic resonance imaging) scan. Nerve conduction velocity (NCV) study reported a demyelinating type of facial palsy. Based on clinical examination, CSF findings and EMG report which satisfied Brighton criteria (level 1) [2], diagnosis of facial diplegia a rare variant of GBS, was made. The patient was given intravenous immunoglobulin (IVIG; 2 g/kg) for 5 consecutive days along with ocular lubricants, eye patches, and physiotherapy. Non-steroidal anti-inflammatory (Naproxen) was given for pain management. On day 4 of treatment, symptom resolution started and the patient was discharged on day 6. Follow-up after 1 week in the OPD, there was complete resolution with no residual weakness.

DISCUSSION

The global burden of GBS varies between 0.6 and 4.0 per 1 lakh among general population, with increased incidence beyond 50 years of age [3]. Involvement of facial nerve paralysis in GBS is seen among 27 to 50% of cases, while facial diplegia is an extremely rare variant reported among 0.2 to 0.8% of all GBS cases [4]. It is generally documented among fatal cases of GBS, but in our case patient had a good prognosis. Other differential diagnoses that need to be kept in mind for facial diplegia are sarcoidosis, systemic lupus erythematosus (SLE), polyarteritis nodosa, multiple sclerosis, pontine tegmental haemorrhage, skull fracture, diabetes, and infectious causes (leprosy, infectious mononucleosis, mycoplasma, and Lyme's disease) [5-7].

A previous study showed that most cases of facial palsy are diagnosed as Bell's palsy, which mostly presents as unilateral and idiopathic [8]. GBS is diagnosed based on the areflexia or decreased deep tendon reflexes, albuminocytological dissociation of CSF, NCV findings, and absence of other infectious causes. Ruling out intrapontine haemorrhage or tumour or fracture at base of skull is also important by CT or MRI, which can have a similar presentation [9]. Autoimmune aetiologies like sarcoidosis and SLE can be easily ruled by the presence of elevated serum ACE and positive ANA.

Literature review shows Lyme disease to be the most common cause of GBS among the infectious causes [10]. But this is less likely in our setting due to decreased risk of contact with ticks and other infectious causes like Campylobacter jejuni, dengue, chikungunya, and Japanese encephalitis need to be excluded. In recent years, several reports of isolated diplegia and other forms of GBS have been associated with post-severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections [11, 12]. Our patient reported no antecedent history of any illness in the past month, but the possibility of any subclinical infection cannot be ruled out. There is a need for large-scale studies to identify such an association. Our patient had a significant resolution of symptoms within 1 week following the administration of IVIG and other supportive management. Previous published case reports also documented significant recovery with very mild residual weakness post 2 weeks [9, 13]. While another study reported poor recovery of facial weakness at 6 months, but the patient had extensive nerve involvement with associated limb weakness which could possibly explain the reason for poor prognosis [14]. In conclusion, we suggest careful evaluation of facial diplegia at the earliest. IVIG is a proven treatment for GBS management and should be started with 2 weeks of the onset of symptoms for significant improvement along with physiotherapy.

Figure 1: A 60-year-old woman presenting with bilateral facial diplegia.

CONCLUSION

Facial diplegia is a rare but important variant of Guillain-Barré Syndrome that can mimic other neurological or autoimmune conditions. Prompt recognition and exclusion of differential diagnoses such as Bell's palsy, sarcoidosis, and infectious etiologies are essential for timely management. This case underscores the significance of considering GBS in patients presenting with bilateral facial weakness, even in the absence of limb involvement. Early diagnosis using clinical findings, CSF analysis, and nerve conduction studies—followed by initiation of intravenous immunoglobulin therapy—can lead to favorable outcomes. Clinicians should maintain a high index of suspicion for atypical GBS presentations to enable early treatment and prevent complications.

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