ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research

Vol. 16, Issue, 08, pp.29629-29630, August, 2024
DOI: https://doi.org/10.24941/ijcr.47685.08.2024

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

REVIEW ARTICLE

NEUROSYPHILLIS PRESENTING AS GBS: A RARE CASE REPORT

Dr Mahesh Dave[1], Dr. Shubhangi Gupta[2,*], Dr. Avinash Sharma[2], Dr. Dipanshu Singhala[2], Dr. Devendra[2] and Dr. Ramgopal Saini[3]

[1]Senior Professor and Unit Head, Department of General Medicine RNT Medical College, Udaipur, Rajasthan
[2]Junior Resident, Department of General Medicine RNT Medical College, Udaipur, Rajasthan
[3]Assistant Professor Department of General Medicine RNT Medical College, Udaipur, Rajasthan

ARTICLE INFO

Article History:
Received 18th May, 2024
Received in revised form
19th June, 2024
Accepted 25th July, 2024
Published online 30th August, 2024

Key words:
Neurosyphilis, GBS

***Corresponding author:**
Dr Shubhangi Gupta

ABSTRACT

Syphilis is a chronic systemic illness caused by troponema pallidium. It is usually sexually transmitted.Neurosyphilis classically presents as meningovasculitis in acute -subacute stage and later on presents as tabes dorsalis and dementia paralytica.(1)However ,one of the less well described presentations include GBS. This is a rare case presented to us with ascending motor areflexic polyneuropathy suggesting the clinical diagnosis as GBS, later on confirmed electrodiagnostically as GBS, but CSF showing atypical finding such as pleocytosis which was further evaluated and ultimately found to have neurosyphilis.

Citation: Dr. Mahesh Dave, Dr. Shubhangi Gupta, Dr. Avinashsharma, Dr. Dipanshusinghala, Dr. Devendra and Dr. Ramgopal Saini. 2024. "Neurosyphillis presenting as GBS: A rare case report*". International Journal of Current Research*, 16, (08), 29629-29630.

INTRODUCTION

Syphilis is a chronic systemic illness caused by troponema pallidium. It is usually sexually transmitted and is characterized by episodes of active disease interrupted by asymptomatic period (latency) after an incubation period of approximately 2-6wks, a primary lesion appears often associated with regional lymphadenopathy and than resolves without treatment. The secondary stage, with generalized lymphadenopathy, also resolves spontaneously and is followed by latent period of subclinical infection lasting for decades.CNS invasion can occur at any stage of infection (2),and it may be symptomatic or asymptomatic. Neurosyphillis can present with meningovasculitis in the acute –subacute stage and tabes dorsalis and dementia paralytica in later stages. It can manifest with variety of manifestation and hence is called " The great Pretender" (3). Guillain-Barré syndrome (GBS) is a rare but serious post-infectious immune-mediated polyneuropathy. It results from the autoimmune destruction of nerves in the peripheral nervous system causing symptoms such as weakness in all four limbs. Many infections have been linked with GBS. The most common are gastrointestinal or respiratory illnesses.

Up to 70% of patients have reported an antecedent illness in the 1 to 6 weeks before the presentation of GBS. During the Zika virus outbreak, many GBS cases were described. Case reports detail many other possible etiologies linked to GBS, including medications and surgeries. We presents a rare case report of a patient with neurosyphillis who developed sudden onset rapidly progressive ascending are flexic LMN type quadriparesis and relevant investigationdone, supporting the diagnosis of neurosyphillis associated Guillian Barre Syndrome.

Case presentation

A 56yr old male truck driver by occupation presented to medicine emergency with sudden onset rapidly progressive weakness in all 4 limbs for last 4 days which started initially from lower limbs bilaterally than progressed to involve bilateral upper limb in next 2 days of the day of onset of symptoms, with no history of breathing difficulty, fever with chills, rashes, bladder and bowel involvement. Patient had past history of painless red colored ulcer on the shaft of his penis 30 yrs ago which healed spontaneously without treatment.

Patient also had history of acute ischaemic stroke in left frontoparietal region 5 yrs back with no residual weakness in all 4 limbs. His wife was diagnosed with syphilis incidentally during hysterectomy.

Examination: Patient was conscious and well oriented to time place and person. On examination Mental function and all the cranial nerves were normal. Motor examination showed weakness in all 4 limbs (proximal>distal) with right upper limb power (3/5) , left upper limb power(3/5) ,left lower limb power (2/5), right lower limb power (2/5) with no fasciculations or atrophy. Deep tendon reflexes were absent bilaterally. bilateral plantar reflex were mute. Sensory examination was normal. The patient presentation of sudden onset rapidly progressive ascending LMN type ,areflexic ,quardriparesis without sensory and bowel ,bladder involvement favouring the clinical diagnosis of Guillian barre syndrome. All relevant investigations were sent including CSF examination and NCV.CSF analysis revealed significant pleocytosis with WBC count of 240 cells/microL , protein-134mg/dl, glucose-106mg/dl. However the history was clinically suggestive of GBS but CSF pleocytosis prompted other differentials and necessitated further workup. An infectious workup consisting of CSF infectious PCR panel was negative ,but serum VDRL and RPR were reactive. CSF TPHA and serum TPHA were also reactive with positive titre of 1:640 confirmingneurosyphillis. GBS is not a classical presentation of neurosyphillis hence further diagnosis with NCS (Nerve conducation study) was done. NCS shows conduction block in bilateral peroneal, tibial, ulnar with increased F wave and H wave latency. These findings were suggestive of demyelinating polyradiculoneuropathy consistent with the diagnosis of AIDP variant of GBS. The clinical symptoms, CSF findings, electrodiagnostic testing provided support for treatment of both GBS and Neurosyphillis.

Clinical course: The patients weakness initially progressed rapidly, He was given IVIG for 5 days as treatment of GBS and penicillin was also started for treatment of neurosyphillis. Patient continued to recover with power improved significantly on day 15 of treatment. With right upper limb power (4/5), left upper limb power (4/5), left lower limb power (4/5), right lower limb power (4/5).

DISCUSSION

GBS is one of the rarest presentation of neurosyphilis. It is acute fulminant polyradiculoneuropathy possibly autoimmune, post infectious or post vaccination. Males are more commonly involved. GBS is clinically characterized by rapidly progressive areflexic motor paralysis without sensory and bowel bladder involvement. Most common variant being AIDP. Approximately 70% of cases of GBS occur 1-3 weeks after an acute infectious process. The common infectious agents which can cause GBS are Campylobacter jejuni, cytomegalovirus (CMV), Epstein- Barr virus, HIV, influenza and mycoplasma. The rare causes may be Zika and Dengue viral infection. The exact mechanism is unknown but possibly it may be due to cell- mediated immunological response to non-self antigen that misdirects to host nerve tissue through a resemblance of epitope mechanism (molecular mimicry). Diagnosis of GBS is based on clinical, laboratory, electrodiagnostic studies. The following is the criteria for diagnosis of GBS (BRIGHTON CRITERIA).

- Acute ,bilateral , symmetrical flaccid limb weakness
- Decreased /absent DTR's in weak limbs
- Monophasic illness pattern
- Absent alternate diagnosis for weakness
- Csf – Albuminocytological dissociation
- Electrodiagnostic study -consistent with GBS

LEVEL 1 = (criteria 1-6 All should be present)
LEVEL 2 = (criteria 1-4 with 5/6)
LEVEL 3 = (1-4)

In our patient level 2 of brington criteria was fulfilled**.**

In our case patient, had history of multiple sexual contacts in the past ,he had classical symptom of primary syphilis including painless chancre 30 yrs ago ,he also had history of ischaemic stroke 5 yrs ago. Currently patient is having classical symptom of GBS. Since neurosyphillis can occur at anytime after initial infection(3)and patient was found positive for CSF -VDRL and CSF -Fta abs. We suspected that both GBS and ischaemic stroke occurred as a result of neurosyphillis. Neurosyphilis is classified as early and late syphilis , CSF ,meninges and vascular structures involed in early stages ,while in late stages cerebral tissue and spinal cord parenchyma are affected therefore it can manifest with wide variety of manifestations like Meningovasculitis which can present as stroke, meningomyelitis(4) , If left untreated it can progress to dementia paralytica, generalized paresis of insane and tabes dorsalis. In this case sudden onset rapidly progressive ascending areflexic LMN type quadriparesis without bladder bowel and sensory involvement suggested the probable diagnosis of GBS, which was futher confirmed by NCV studies. But CSF pleocytosis and normal glucose along with raised CSF protein values were suggesting of GBS secondary to some other etiology. For which past history ,familial history and personal history were reliable for syphilis, further workup was done to confirm the diagnosis of neurosphyllis.

CONCLUSION

GBS is a rare neurological presentation of neurosyphilis. A patient presenting with progressive are flexic paralysis should always be evaluated for neurosyphilis. The patient should be diagnosed and treated as early as possible to reduce further complications and mortality. Thus our case report calls attention to physicians for the possibility of association between neurosyphilis and GBS.

REFRENCES

1. Gonzalez H, Koralnik IJ, Marra CM. 2019. Neurosyphilis. InSeminars in neurology Aug (Vol. 39, No. 04, pp. 448-455). Thieme Medical Publishers.
2. Hagihara M, Yamagishi Y, Kato H, Shibata Y, Shiota A, Sakanashi D, Suematsu H, Watanabe H, Asai N, Koizumi Y, Furui T. 2018. Frequency of Treponema pallidum invasion into cerebrospinal fluid in primary or secondary early-stage syphilis. Journal of infection and chemotherapy. May 1;24(5):404-6.
3. Ellis RJ. 2019. 22 The Great Pretender. Case Studies in Neurological Infection. Mar 21:89.
4. Gonzalez H, Koralnik IJ, Marra CM. 2019. Neurosyphilis. InSeminars in neurology Aug (Vol. 39, No. 04, pp. 448-455). Thieme Medical Publishers.

****