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ABSTRACT
Myasthenia gravis is an autoimmune disease caused by the production of antibodies against the acetylcholine receptor sites of the neuromuscular junction. The produced antibodies result in the autoimmune dysfunction of critical muscles. Treatment options include immunosuppression, plasma exchange and plasmapheresis. However, because of the poor financial state of our patients and the dearth of appropriate equipment in our center, plasmapheresis is mainly used as an addendum treatment including immunosuppressants.

METHOD: We report a case of myasthenia gravis who was on various occasions on observation, immunosuppression, and plasmapheresis. After about 10 months of treatment, he developed myasthenic crises on two occasions. He was admitted to the ICU for respiratory support where he also had modified plasmapheresis.

RESULTS: The patient had remarkable improvement following the course of plasmapheresis with reversal of symptoms of the myasthenic crises.

CONCLUSION: In the absence of facilities for standard plasmapheresis in this environment, the use of modified plasmapheresis is hereby recommended.

KEYWORDS: Myasthenia gravis; Modified plasmapheresis; Brain

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INTRODUCTION
Myasthenia Gravis (MG) is an autoimmune disorder of the neuromuscular junction characterized by fluctuating weakness and fatigue of the voluntary muscles. This is as a result of the development of antibodies against the acetylcholine receptors (AChR). This leads to a reduction in the number of receptor sites available for the stimulation of the muscle and for the action of acetylcholine. Full recovery can be achieved with proper therapy, although there is no permanent relief of the symptoms. I.V. infusion of I.V. which is usually done depending on the severity of the disease, involves the use of anti-inflammatory agents [immunosuppressants, steroid therapy and plasmapheresis].

CASE REPORT
A 33-year-old male Negroid laboratory scientist presented at the Department of Medicine, University College Hospital, Ibadan, Nigeria with a 6-month history of recurrent drooping of his left upper eyelid and blurring of vision. The weakness got worse with exertion and improved with rest or when he awoke in the morning.

He was diagnosed as a case of MG following a positive response to the edrophonium (Tensilon) test within 30 seconds of administration. There were no facilities for electromyography, Ach-R antibody assay and repetitive nerve stimulation at this institution at the time of this study.

He was treated with i.v. immunosuppressants (CsA) three times daily or prednisolone (30 mg) three times daily, depending on what was available. However, maximal therapy and the relatively high cost of the drugs hampered effective management of the patient. Prednisolone (30 mg) daily was added to his therapy when that was given because of the relatively low prednisolone of 7.2/7/20 mg/day. His earlier mobility gradually improved and he was able to walk on his own. He returned home without any problems. He was reviewed at 2 weeks after discharge. There was no evidence of relapse at the time of discharge.

On discharge, Mr. J. was advised to have his medication maintained with bilateral plant and very good mobility. He developed bruising of
voice, difficulty with swallowing and recurrent upper and lower limb weakness. He could not see clearly. He had difficulty communicating a sentence and the response of non-specific body movements was minimal. Attempt to add acetylcysteine was impossible, as the patient could not: afford it. The patient got progressively weak with alteration of the respiratory sounds. He was immediately admitted to the intensive care unit (ICU) of the hospital for respiratory insufficiency and ventilatory support on two occasions because of respiratory failure.

During these two admissions, he was treated in a modified thiopentone-phosphate (thiopentone +) or part of his treatment. He had two sessions in the first admission. The patient needed respiratory support. This was achieved by the ability to demonstrate objective improvement in muscle strength and ventilatory support. The patient was on the CTU admission, he had 2 sessions of modified thiopentone-phosphate and needed ventilatory support. He was able to sit up again on the third, with swallowing and coughing effort. The patient walked with support and was maintained for long periods. The patient was not maintained for long periods. Computed tomography of the chest, as well as the chest is well absorbed. Some measures of modified thiopentone-phosphate were used because of the poor functional status of the patient. He was transferred to the general medical ward and was subsequently commenced on ventilatory support. After about a week, he was placed on a modified thiopentone-phosphate. He was subsequently planned for some measures of modified thiopentone-phosphate, whereas necessary, prior to referral to a centre with facilities for intubation and ventilation, as soon as he is able to get the necessary financial assistance.

Intensive Care Unit Monitoring

**DAY 1**
- **PH** 7.0
- **PCO2 (PaCO2)** 75
- **PO2** 80
- **HCO3** 30
- Serum Sodium
- **INR** 2.2

**DISCUSSION**

Medical practitioners often make the diagnosis of MS, which is largely dependent on history and clinical examinations. This problem has always been with the confirmation of the diagnosis with the Tensilon test (EDrophonium), which is often not available. Neurontin could be helpful in confirming the diagnosis. By far the major set back commonly encountered in Nigeria is the management of MS in the presence of management options. Immunotherapy, phototherapy and radiotherapy are all possible for the management of MS.

Within immunotherapy, it is virtually non-existent in most of our hospitals, radiotherapy is only the last resource. There is no other resource available in the country except for a few specialized clinics. There is no other resource available in the country except for a few specialized clinics. ETV, a serial example of the first documented in this patient, measured 0.5 cm. Significant improvement (MRI) was achieved by the inability to open the eye-sole, which improved ability to make sentences and instead emit in conjugations and association, as well as the implementation of difficulty with breathing output in this patient. Velosity of the pre-planned periodicities, which were the procedures. This response subtle to the neurogenic response to the stimulation of pain facilitation (Morphine) significantly.

Three points to any standard migraine occurs as
- Step-regimens which can be used, which consists of the patient's and other properties especially in a hospital setting for care patients and relatives. Meanwhile, the ETV will continue to find relevant for the management of patients with MS as well as automatic insufficiency in the developing countries particularly the sub-Saharan region.

**APPROACH**

**MOTORIC ASPIRAPHOESIS / PLAST EXPANSION**

1. Sedation of the patient is induced into the patient
2. 450 cm blood is phlebotomized into a CPD-AS double bag
3. Needle of normal saline is inserted into the patient
4. The blind removed in (3) is kept open at 300 rpm for minutes in a solid centrifuge machine, while the patient

*Image and text content*
Transferred into the second blood bag and administered.

5. The packed red blood cells have transferred back into the patient.

6. The procedures in 2 and 4 are repeated twice at each procedure.

REFERENCES


3. Nigro ODA, Nakajima T, Ourano S. Takeda's


