BULBAR PALSY: A CASE REPORT IN GENERAL MEDICINE DEPARTMENT.

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DIGEST
Bulbar palsy is deterioration of cranial nerves occurs due to the infarction either at medulla or nerves outside the brain stem. It presents with difficulty in swallowing and chewing, slurring of speech and dysarthria. In addition, there may be lower motor neuron lesions of the limbs. Though rare in occurrence (1 in 2.5 lakhs), it leads to significant morbidity and mortality. Any damage of the neurons can be diagnosed by EMG. A 78 years old male patient presented with headache, throat pain, difficulty in swallowing, slurring of speech. An initial management of neuro protective glutamate release inhibitors was given. Early detection of the disease can prolong the tracheostomy and life span of the patient.

KEYWORDS: Bulbar palsy, motor neuron disease (MND), electro myography (EMG), electro palatography (EPA), myasthenia gravis (MG), NSAIDS, erythrocuprein (Cu,Zn SOD).

INTRODUCTION
Progressive bulbar palsy is a degenerative disease causing damage of motor neurons in cerebral cortex, spinal cord, brain stem, pyramidal tracts. These have glossopharyngeal nerve, vagus nerve, hypo glossal nerve innervations. Sometimes the disease is generally confused with pseudo bulbar palsy, but the upper part of cranial nerves damage causes pseudo bulbar palsy and lower part causes bulbar palsy.[¹] The occurrence of this disease is very rare. About 2 in 10 people with MND are diagnosed as bulbar palsy. MND is uncommon with incidence of 2 cases in 100000 population. The prevalence is 5-7 in a lakh. Males are twice affected than females.

The major problem of a patient affected with bulbar palsy is difficulty in swallowing. Other symptoms includes trembling lips, drooling saliva, dropping tongue, deficiency of palatal movements, along with difficulty of speech.[²] Lack of gag reflexes are also seen in bulbar palsy.[³] Pseudo bulbar palsy can be differentiated with bulbar palsy based on symptoms like presence of jaw jerks and the absence of facial expression.[²]

The major causes are unknown. Some of the symptoms generally includes brain stem tumours, Guillain-barre syndrome, diphtheria, polio myelitis,[³] Some of the toxins like botulinum toxin, bark scorpion[⁶] and snake venoms[⁷] also cause bulbar palsy. It was proved genetically that the mutation in CuZn-superoxide dismutase cause bulbar palsy.[¹⁰] The disease can be identified by using EMA, EPA and imaging of brain by CT or MRI. Blood investigations can also be done to identify the underlying cause.[⁴] Detection of acetyl choline receptor binding antibodies helps to obviate myasthenia gravis.[⁹] Fiber endoscopy and videofluoroscopy is done to assess dysphagia.[¹¹]

It is non-curable, leads to death with in years. Some of the procedures may help in prolonging the survival. These includes speech therapy, physiotherapy and NIV. Some of the drugs may also increase life span like riluzole which may increases upto months. It prolongs the tracheostomy and ventilator dependence. Some drugs are used to reduce symptoms like anti cholinergics like hyoscine, anti –oxidants, anti-convulsents like phenytoin, gabapentin, etc., benzodiazepines for muscle cramps, anti depressents and NSAIDS.[⁵]

The complications includes respiratory failure, UTI’s, constipation, muscle cramping, immobility, cognitive deterioration in few people. Finally the complications leads to mortality of the patient.

CASE REPORT
A 50 years male patient was admitted in general medicine Dept. with chief complaints of headache and throat pain since 20 days. difficulty in swallowing, slurring of speech, aggrevated since 2 days and fascicullating tongue. His past history has revealed that he has no such complaints in the past, and he was not a known smoker, alcoholic, diabetic and hypertensive.
On general examination the patient was conscious and cooperative. On physical examination the patient was pallor. His vitals were found to be normal except pulse rate (89 bpm). He was advised for MRI and it reveals ischemic foci in the bilateral cerebral parenchyma and his barium swallow test imaging features suggests the probability of traction diverticulum (D2-D4 vertebral level) above the level of aortic knuckle. Based on these, he was diagnosed as progressive bulbar palsy. On the day of admission he was treated with INJ.OPTINEURON (B1:33mg,B6: 33mg, cobalamine:333mg, D-PANTHENOL: 5mg/ml), T.Gabapentin 300mg once a day, T.Riluzole 50mg once a day, T.Ecosprin 150mg once a day, T.Atorvastatin 20mg, along with physiotherapy. He was continued with same medication for next two days and discharged with following medication., T.Riluzole 50mg OD, T.Ecosprin 150mg OD, T.Atorvastatin 20mg OD.

DISCUSSION
Bulbar palsy occurs in very rare (1 in 2.5 lakhs) of general population. it represents with slurring of speech, difficulty in swallowing and fascicullated tongue. Medullary infarction is the main cause of disease. The incidence is more in males than in females.

MRI of brain has revealed an ischeamic foci in the cerebral parenchyma. The disease was treated with T.Riluzole. early detection of the disease can prolong tracheostomy and the life span of the patient. If the disease gets progressed further complications includes immobility and respiratory failure which finally leads to death of the patient.

CYCLOPEDIA