# Amyotrophic Lateral Sclerosis (ALS) - A Case Report

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## ABSTRACT

This is a case of 54 year old male patient with Amyotropic Lateral Sclerosis. The patient is a known case of ALS. Patient came with features of quadriparesis of 1 year duration. Limb weakness started in each limb and slowly progressed to involve all four limbs. Patient also have difficulty in walking due to severe stiffness in both lower limb. Final diagnosis of MND-ALS was made because of limbs having both UMN and LMN signs which was confirmed by nerve conduction study and was treated with T. Riluzole 50 mg OD.

**Key words:** Amyotropic Lateral Sclerosis (Als), Lmn And Umn Signs, Riluzole.

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## INTRODUCTION

Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease characterized by rapidly progressive muscular paralysis caused by degeneration of motor neurons leads to muscle wasting (atrophy), muscle spasticity, muscle weakness. Respiratory failure limits survival to 2-5 years after disease onset.[1] Both upper motor neuron and lower motor neuron gets affected.it is otherwise known as Lou Gehrig's disease or motor neuron disease.[5]

The clinical presentation of amyotrophic lateral sclerosis is variable. At the same time the diagnosis is important for the prognosis and management. Typically, there is both upper motor neuron and lower motor neuron sings along with electro diagnostic studies which is indicative of ALS.[2]

## CASE REPORT

54 years old male patient came with features of quadriparesis of 1 year duration. Limb weakness started in each limb and slowly progressed to involve all four limbs. Patient also have difficulty in walking due to severe stiffness in both lower limb (scissoring gait). Now patient is bedridden. He also have dysarthria with stiff tongue (features of pseudo bulbar palsy). Jaw jerk is position with bilateral upper motor neuron type facial palsy. Limb examination showed signs of bilateral pyramidal tract disease (extensor plantar bilaterally, spasticity, clonus and exaggerated refluxes) and signs of anterior horn cell damage (severe muscle atrophy) (Figure 1, 2). Fasciculation absent (burnt out disease) sensory spincture whereas sensorium is normal . It was

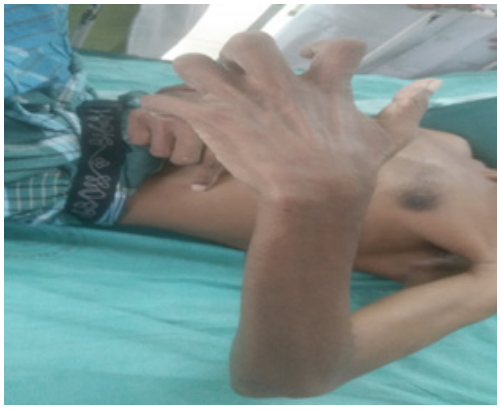

**Figure 1: Stiffness of upper limb.**

finally diagnosed as MND-ALS was made because of limbs having both

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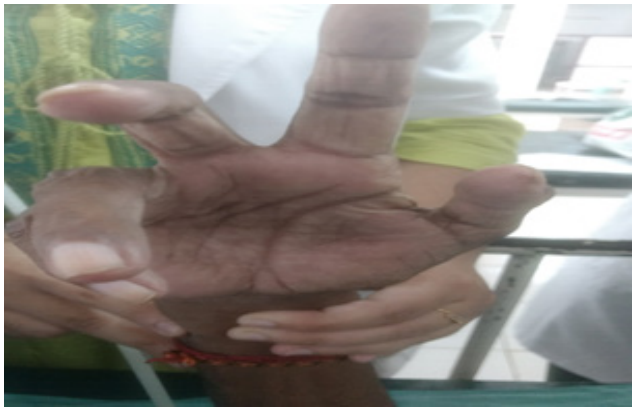

**Figure 2: Muscle wasting.**

UMN and LMN signs which was confirmed by nerve conduction study.

He is given with neuroprotective agent Gabapentin 300 mg BD, Tizanidine 1 mg thrice a day and Baclofen 10 mg thrice a day was administered for muscle relaxation and whereas Riluzole which is anti-glutaminergic drug 50 mg OD given for all the days. Following the given therapy patient reported symptom relief and was discharged.

## DISCUSSION

Amyotrophic lateral sclerosis is believed to cause by exitotoxicity of glutamate, oxidative stress and axonal injury .Increased glutamate activity, or increased level of free radicals that damages motor neurons which is responsible for the control of the involuntary muscle.[5]

The best possible way to limit the progression of ALS is early diagnosis together with anti-glutaminergic therapy and physiotherapy.[4] Muscular activities are very essential to minimise wasting of muscles. Riluzole therapy prevent the progression of disease. Life style modifications like regular exercise and quitting smoking proven control over the progression of disease.[3]

In our case patient muscle spasticity is treated with Baclofen and Tizanidine. Riluzole was given for the prevention of further progression. Following the current therapy patient reported symptom relief and was discharged.

## CONCLUSION

Amyotrophic lateral sclerosis should be considered in patients with a rapidly progressive, unexplained neuropathic process. The early diagnosis is essential for prevention of disease progression .The incidence of ALS is increasing every year so efforts must be taken to promote awareness of the disease and encourage the research for ALS management.

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## CONFLICT OF INTEREST

There is no Conflict of Interest

## ABBREVIATION USED

ALS: amyotrophic lateral sclerosis; MND: motor neuron disease; LMN: lower motor neurons; UMN: upper motor neuron.

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