A CASE REPORT OF LATERAL MEDULLARY SYNDROME WITH DYSPHAGIA

D. Bala Subrahmanyam[1], B. Sarath Kumar Reddy[2], Revathi[3], G. Lokendranath[4], R. Prabhakar Rao[5]

HOW TO CITE THIS ARTICLE:
D. Bala Subrahmanyam, B. Sarath Kumar Reddy, Revathi, G. Lokendranath, R. Prabhakar Rao. "A Case Report of Lateral Medullary Syndrome with Dysphagia". Journal of Evidence based Medicine and Healthcare; Volume 1, Issue 17, December 29, 2014; Page: 2204-2208.

ABSTRACT: We present a case of Wallenberg syndrome presented with persistent history of giddiness, nausea, vomiting, regurgitation of food into mouth, hemiparesis, sensory symptoms and ataxia. It is usually by occlusion of the cranial segment of the vertebral artery or the posterior inferior cerebellar artery due to thrombosis or embolism. The emboli may come from the heart or the great vessels. We can diagnose Lateral medullary syndrome with expert clinical eye and CT/MRI of the brain.

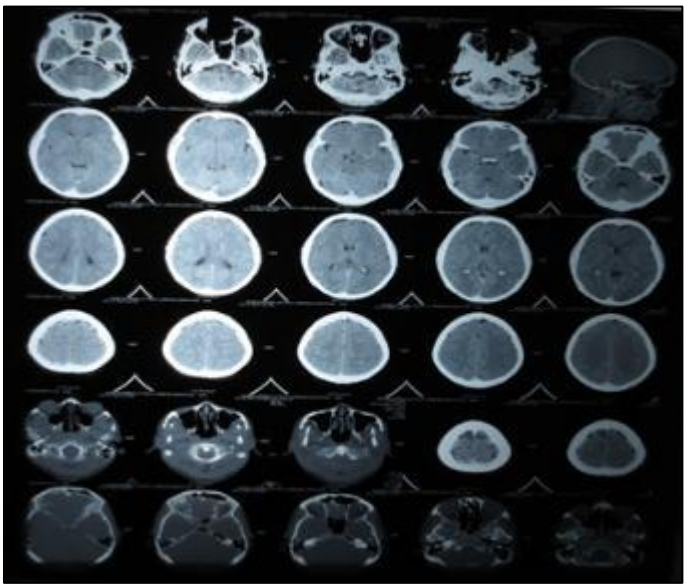
KEYWORDS: Lateral Medullary Syndrome, dysphagia, ataxia, Horner's syndrome, posterior inferior cerebellar artery, Wallenberg syndrome.

INTRODUCTION: This syndrome was first described in 1808 by Gaspard Vieusseux. First descriptions by Adolf Wallenberg were in 1895 (clinical) and 1901 (autopsy findings). Clinical symptoms reported are swallowing difficulty, or dysphagia, slurred speech, ataxia, facial pain, vertigo, nystagmus, Horner syndrome, diplopia, and possibly palatal myoclonus. Lateral medullary syndrome (also called Wallenberg syndrome or posterior inferior cerebellar artery syndrome) is a disorder where the patient presents neurologic symptoms due to injury to the lateral part of the medulla in the brain, resulting in tissue ischemia and necrosis. This syndrome is characterized by sensory deficits affecting the trunk and extremities on the opposite side of the infarction and sensory deficits affecting the face and cranial nerves on the same side with the infarct.

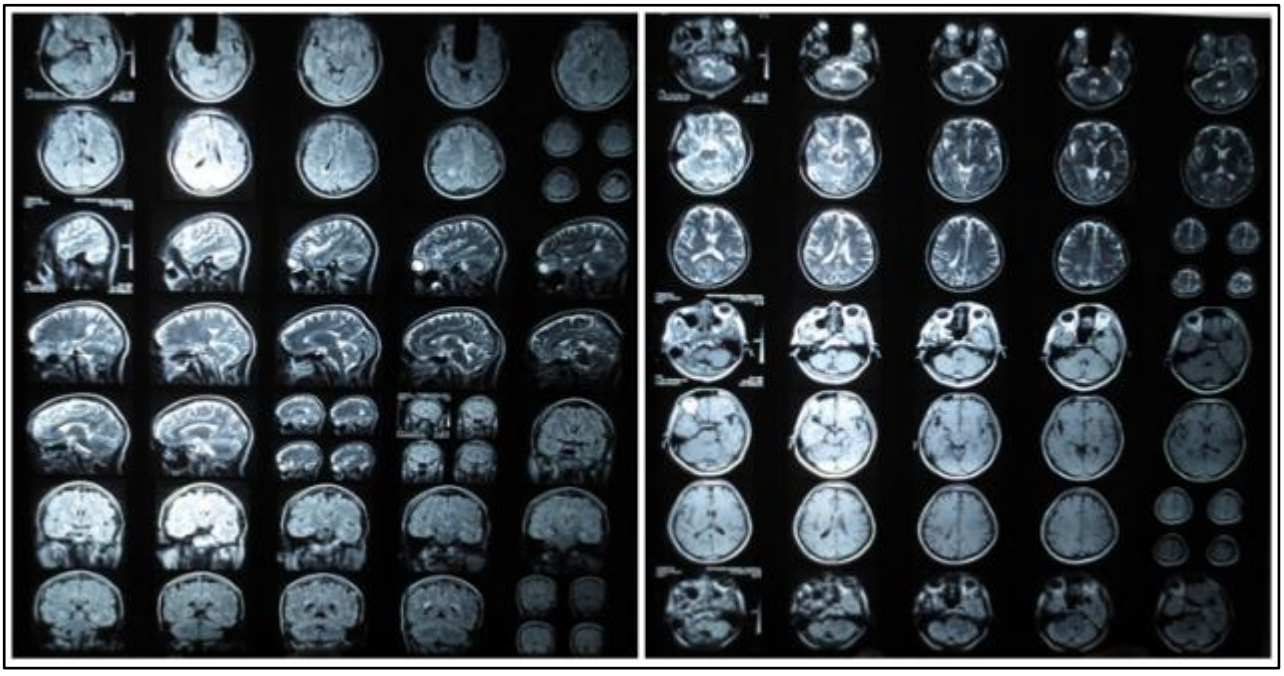
The syndrome is characterized by sensory deficit affecting the trunk and extremities on the opposite side of the infarction and sensory deficits affecting the face and cranial nerves on the same side with the infarct. This crossed finding is diagnostic for the syndrome. Other clinical symptoms and signs are swallowing difficulties (Dysphagia) slurred speech, ataxia, facial pain, vertigo, nystagmus, Horner's syndrome, diplopia and possibly palatal myoclonus. The affected persons have dysphagia resulting from involvement of the nucleus ambiguous as well as dysarthria. Damage to the spinal trigeminal nucleus causes absence of pain on the ipsilateral side of the face as well as absence corneal reflex.

CASE REPORT: A 45 yr old male apparently well 2 days ago, came to medical out-patient department with c/o sudden giddiness and fall to right side while walking. This occurred several times since then and on closing right eye it is more frequent. No history of any Injury, Fever, Diplopia, Headache. He also has regurgitation of food into mouth, difficulty in swallowing especially liquids than solids and difficulty in speaking fluently. He has history of hiccups and no incontinence of bladder, bowel problems. Clinically, the patient had a loss of pain and temperature on the left side of the face, a loss of pain and temperature on the right side of the

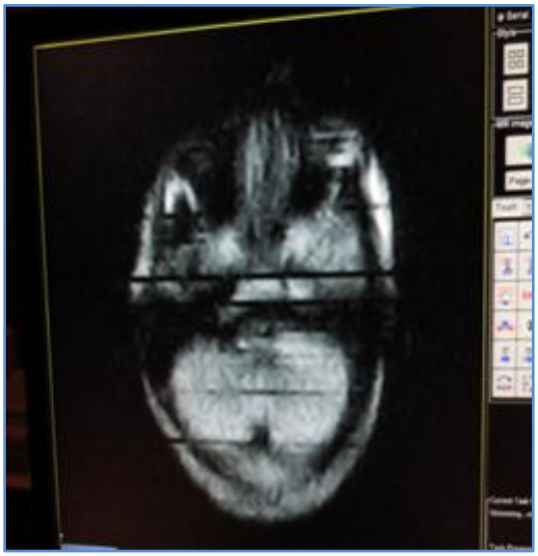
trunk, a mild left hemiparesis, and a left-sided ataxia. Nystagmus, diplopia, and hiccups were also evident. A left lateral medullary syndrome in the vascular distribution of the posterior inferior cerebellar artery was diagnosed. Work-up included a magnetic resonance imaging angiogram, which revealed an occlusion of high-grade stenosis of the basilar artery.



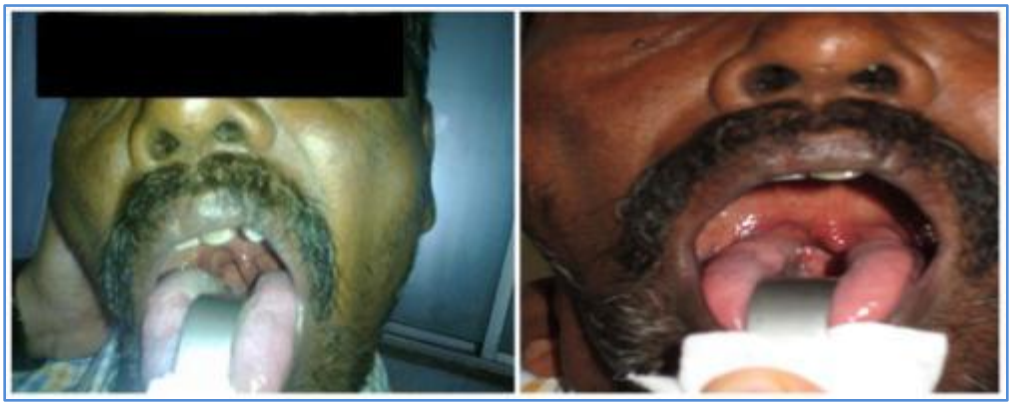
CT scan of Brain



MRI of brain



MRI of brain showed Infarct in lateral medulla on Right side



Deviation of Uvula

DISCUSSION: Affected persons have difficulty in swallowing (dysphagia) resulting from involvement of the nucleus ambiguous, as well as slurred speech (dysarthria) and disordered vocal quality (dysphonia).Lateral medullary syndrome is commonly caused by thrombosis or embolism of the VA or PICA. Here, the emboli may come from the heart as the patient had an attack of myocardial infarction (MI). Among the symptoms and sings, dysphagia is troublesome and has been reported in 51% to 94%[1].Damage to the spinal trigeminal nucleus causes absence of pain on the ipsilateral side of the face, as well as an absent corneal reflex. The spinothalamic tract is damaged, resulting in loss of pain and temperature sensation on the opposite side of the body. The damage to the cerebellum or the inferior cerebellar peduncle can cause ataxia. Damage to the hypothalamospinal fibers disrupts sympathetic nervous system relay and gives

symptoms analogous to Horner syndrome. Nystagmus and vertigo may result in falling, caused from involvement of the region of Deiters' nucleus and other vestibular nuclei. Onset is usually acute with severe vertigo. Palatal myoclonus may be observed due to disruption of the central tegmental tract. It is the clinical manifestation resulting from occlusion of the posterior inferior cerebellar artery (PICA) or one of its branches or of the vertebral artery, in which the lateral part of the medulla oblongata infarcts, resulting in a typical pattern. The most commonly affected artery is the vertebral artery, followed by the PICA, superior middle and inferior medullary arteries. The outlook for someone with lateral medullary syndrome depends upon the size and location of the area of the brain stem damaged by the stroke. Some individuals may see a decrease in their symptoms within weeks or months. Others may be left with significant neurological disabilities for years after the initial symptoms appeared.[2]

CONCLUSION: The patient reported with persistant hiccups (25/min), which interfered with nutrition, sleep, and activity. While in the acute care hospital, the patient was treated with prochlorperazine, promethazine, and chlorpromazine. All these medications were ineffective in stopping the hiccups. Patient in most cases the dysphagia in WS initially severe enough to require non-oral feeding but often improves rapidly, and the patient can return to oral feeding within 1 to 2 months after the stroke.[1,3] Although in Wallenberg syndrome the lesion due to lateral medullary infarction is unilateral, its effect on oro-pharyngeal swallowing is bilateral.[4]

After a search into medical literature available, Baclofen was recommended as the drug of choice for stopping persistent hiccups,[5,6] the patient was given 5 mg of baclofen by mouth three times per day, and the hiccups relieved within 48 hours. The baclofen was discontinued after one week of therapy without relapse. It is therefore recommended that consideration of baclofen for the treatment of persistent hiccups after lateral medullary syndrome.

REFERENCES:

1. Logemann JA. Evaluation and treatment of swallowing disorders.2nd ed. Austin, Tex: Pro-Ed inc; 1998.
2. Kim H, Chung CS, Lee KH, Robbins J. Aspiration subsequent to a pure medullary infarction: lesion site, clinical variables and outcome. Arch neurol. 2005; 57: 478-483,.
3. Aydogdu I, Ertckin C, Tarlaci S, Turman B, Kiylioglu N, Secil Y. Dysphagia in lateral medullary syndrome (Wallenberg's syndrome). Stroke 2001; 32: 2081-2087.
4. Kim JS. Pure lateral medullary infarction: clinical-radiological correlation of 130 acute, consecutive patients. Brain 2003; 126 (8): 1864-1872.
5. Sacco RL, Freddo L, Bello JA, Odel JG, Onesti ST, Mohr JP.Wallenberg's lateral medullary syndrome. Arch Neurol.1993; 50: 609-14.
6. Logemann JA. Evaluation and treatment of swallowing disorders. 2nd ed. Austin, Tex: Pro-Ed inc; 1998.

CASE REPORT

AUTHORS:

1. D. Bala Subrahmanyam
2. B. Sarath Kumar Reddy
3. Revathi
4. G. Lokendranath
5. R. Prabhakar Rao

PARTICULARS OF CONTRIBUTORS:

1. 3rd Year Post Graduate, Department of General Medicine, Santhiram Medical College & General Hospital.
2. 2nd Year Post Graduate, Department of General Medicine, Santhiram Medical College & General Hospital.
3. 1st Year Post Graduate, Department of General Medicine, Santhiram Medical College & General Hospital.
4. Assistant Professor, Department of General Medicine, Santhiram Medical College & General Hospital.
5. Professor & HOD, Department of General Medicine, Santhiram Medical College & General Hospital.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. D. Balasubrahmanyam,
3rd Year Post Graduate,
Department of General Medicine,
Santhiram Medical College & General Hospital,
N. H-18, Nandyal.
E-mail: drbalud@gmail.com

Date of Submission: 08/12/2014.
Date of Peer Review: 09/12/2014.
Date of Acceptance: 12/12/2014.
Date of Publishing: 29/12/2014.