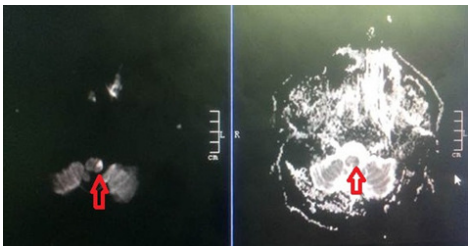
(*Refer to page 156*)

Answer: Lateral Medullary Syndrome (Wallenberg Syndrome)

Lateral Medullary Syndrome (LMS) or Wallenberg Syndrome is a type of cerebrovascular incident characterised by injury to the lateral part of the medulla oblongata (**Panel**). This results in tissue ischaemia, necrosis and a number of neurologic symptoms. Due to the location of the infarction many neurological abnormalities can be clinically evident. [1] Structures that may be involved include; the vestibular nuclei, the inferior cerebellar peduncle, the tegmental tract, the lateral spinothalamic tract, the spinal trigeminal nucleus, the nucleus ambiguus, and the descending sympathetic fibres. The most common presentation of patients with LMS is a sensory deficit of the ipsilateral side of the face and contralateral side of the body to the infarct. Sudden onset of dysphagia, slurred speech, ataxia, vertigo, nystagmus, Horner's syndrome, and diplopia are also indicative of injury. [1]

LMS is caused by the occlusion of blood to the lateral medulla, specifically the posterior inferior cerebellar artery (PICA) and branches of the PICA, and the vertebral artery.

The diagnosis can often be based on the triad of ipsilateral ataxia, ipsilateral hyperalgesia and Horner's syndrome (Table). [2] MRI is the investigation of choice for diagnosis, localising the site of infarct and identifying any co-existing cerebellar infarcts. Cerebral angiography is rarely performed to determine the suitability of the PICA for recanalisation. [2] The area of infarction is uncommonly detected on CT scan.



MRI Brain: DWI/ADC sequences at the level of the brainstem: Focus of acute diffusion restriction in the left lateral medulla.

Treatment of LMS varies with the presentation and severity of the disease. Treatment includes anti-platelet therapy and anti-epileptics. [3] The prognosis depends on the size and location of the infarcted area. While most patients see signs of recovery in a few months, in serious cases there can be long lasting significant neurological disabilities. [1]

Table: Affected areas and clinical manifestations.

Affected areas	Clinical Manifestations
Spinal Trigeminal Nucleus	Pain and temperature sensory loss to face (ipsilateral side)
Inferior Cerebellar Peduncle (Restiform Body)	Ataxia, dysdiadokinesia, dysmetria
Vestibular Nucleus	Vertigo, nystagmus, nausea/vomiting
Nucleus ambiguus	Dysphagia, hoarseness
Descending sympathetic fibres	Horner's syndrome
Lateral Spinothalamic tract	Pain and temperature sensory loss to body (contralateral side)
Tegmental tract	Palatal myoclonus

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3: Shetty S, Anusha R, Thomas P, Babu S. Wallenberg's syndrome. J Neurosci Rural Pract. 2012; 3:100-2.