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## Case Report

# Lacunar lesion of the thalamus: a case report

*Lesão lacuna no tálamo: relato de caso*

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## Abstract

In this article, the authors present a computed tomography (CT) image scan of the brain of a 72-year-old patient who, upon waking, noticed numbness in the left hemiface, hemithronchus, and upper limb. Sensorimotor syndromes are commonly related to vascular infarction of inferolateral artery (ILA) territory, also known as thalamogeniculate pedicle. Usually this pain disturbance happens in right thalamic infarcts having a delayed onset, however, it might be acutely presented.

## Resumo

Neste artigo, os autores apresentam uma tomografia computadorizada (TC) do cérebro de um paciente de 72 anos que, ao acordar, notou dormência na hemiface esquerda, hemitronco e membro superior. As síndromes sensório-motoras são comumente relacionadas ao território do infarto vascular da artéria inferolateral (ILA), também conhecido como pedículo talamogeniculado. Normalmente, esse distúrbio de dor ocorre em infartos talâmicos direitos, tendo um início tardio, no entanto, pode ser apresentado de forma aguda.

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## Introduction

The vascular supply of the thalamus's nuclei is composed of four arteries (*i.e.*, tuberothalamic, inferolateral, paramedian, and posterior choroidal vessels). These arteries can receive different anatomic names.[1] The arteries branches and their tributaries may individually vary in number and location.[2] When small subcortical lesions within 15 mm are occluded by a penetrating artery from a large cerebral artery, we may call it as lacunar infarctions. Those may cause lacunar syndromes.[3] In this article, the authors present a computed tomography (CT) image scan of the brain of a patient with a lacunar lesion of the thalamus.

## Case report

A 72-year-old woman presented, upon waking numbness in the left hemiface, hemitrunk, and upper limb. On physical examination, tactile hypoesthesia was detected in the left hemibody with mild left central facial paralysis. CT shows a lacunar lesion in the right ventroposterolateral thalamus (Figure 1).

## Comment

Sensorimotor syndromes are commonly related to vascular infarction of inferolateral artery (ILA) territory, also known as thalamogeniculate pedicle (Figure 2). This artery emerges from the P2 segment of the Posterior Cerebral Artery (PCA). The principal inferolateral branches of ILA vascular territory respond to the supply of the ventral posterior thalamic nucleus complex.[4] This infarction area can be related to all modalities of sensorial loss with variable extent besides motor deficits, as presented in this case. The thalamic syndrome can also be followed by central poststroke pain, which is presented in 80% of cases.[5] Usually, this pain disturbance happens in right thalamic infarcts having a delayed onset, however, it might be acutely presented.

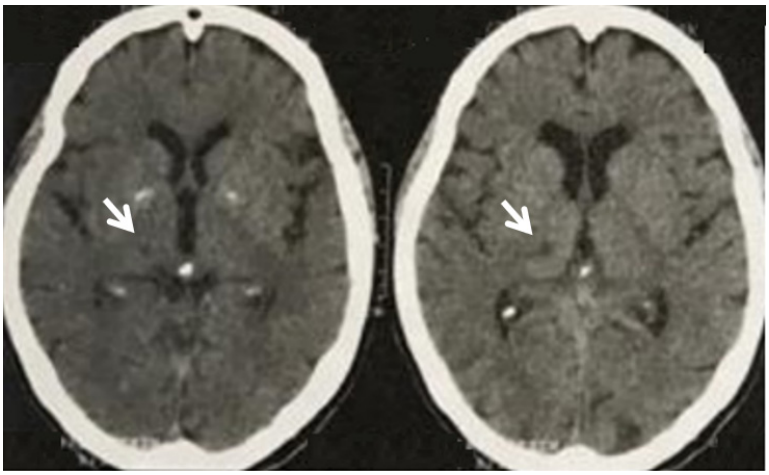

**Figure 1**. Computed tomography (CT). Small inferolateral artery territory infarction in the right thalamus (arrows), presented as a lacunar hypodense spot. It corresponds to the ventral posterior thalamic nuclei complex.

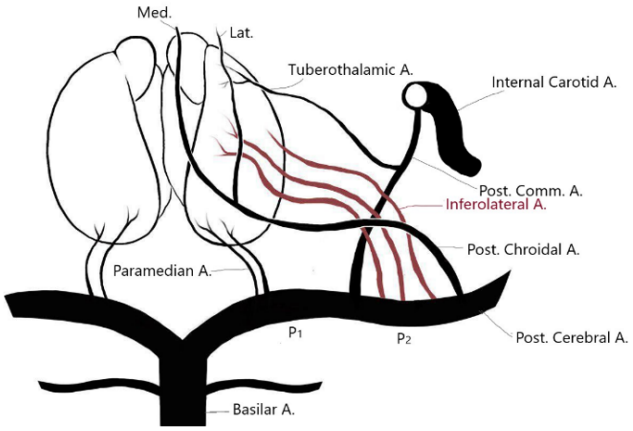


**Figure 2.** Schematic image of thalamus irrigation.

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