

Coumadin ridge (Q-tip sign)

Cresta de coumadin (signo del hisopo)

José M. Alanís-Naranjo^{1*}, Kevin D. Aragón-Ontiveros¹, and Julio C. Rivera-Hermosillo²

¹Department of Cardiology; ²Department of Echocardiography. Hospital Regional 1° de Octubre ISSSTE, Mexico City, Mexico

A 71-year-old woman with hypertension, type 2 diabetes, and two prior episodes of ischemic stroke was admitted to the internal medicine ward after experiencing sudden dizziness and nausea, followed by vague speech and left limb hemiparesis, which lasted approximately 30 min. The brain computed tomography revealed an acute infarction limited to the lenticular nucleus. The 12-lead electrocardiogram and Holter monitoring results were normal, while cardiac telemetry during hospitalization revealed no arrhythmias. A transesophageal echocardiogram (TEE) was performed, which revealed no thrombus and only a recess from the left atrial appendage to the interior of the left atrium, which

was consistent with the Coumadin ridge (Figs. 1 and 2). The department of internal medicine continued to follow the protocol for determining the cause of stroke.

The Coumadin ridge, also known as the “Q-tip sign,” is an anatomical variant in the left atrium¹. This ridge is the tissue that separates the left atrial appendage from the left superior pulmonary vein^{1,2}. In general, the proximal part is thin, and the distal tip can be wider, protruding inside the atrium; one of its components is the ligament of Marshall, a remnant of the left superior vena cava, extending along the recess¹. During the early days of TEE, the “Q-tip sign” was sometimes mistaken for a left atrial mass².

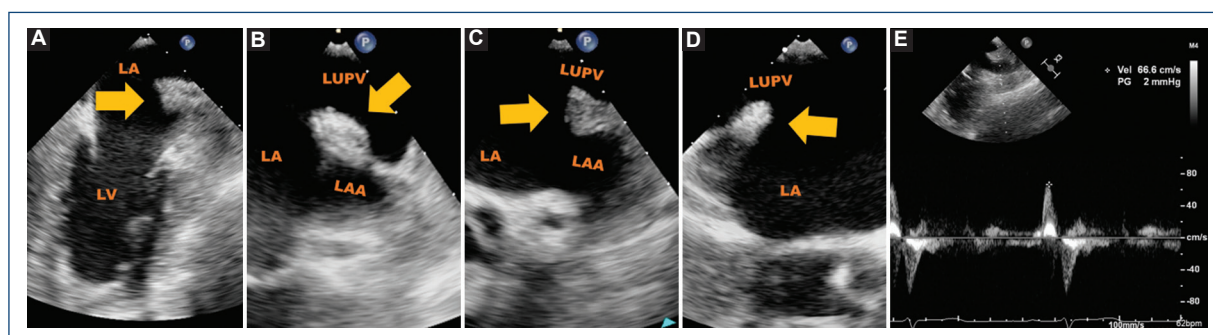


Figure 1. Transesophageal echocardiogram showing Coumadin ridge (yellow arrow): **A:** mid-esophageal view at 45°, **B** and **C:** mid-esophageal view at 60° and 64° respectively, zoom-mode acquisition of the left atrial appendage, **D:** mid-esophageal view at 180°, **E:** left atrial appendage with peak emptying velocity of 66 cm/s. LA: left atrium; LAA: left atrial appendage; LV: left ventricle; LUPV: left upper pulmonary vein.

*Correspondence:

José M. Alanís-Naranjo
E-mail: martin.alanis.n@gmail.com

Date of reception: 26-11-2023

Date of acceptance: 07-05-2024

DOI: 10.24875/ACM.23000243

Available online: 31-10-2024

Arch Cardiol Mex. 2024;94(4):531-532

www.archivoscardiologia.com

1405-9940 / © 2024 Instituto Nacional de Cardiología Ignacio Chávez. Published by Permayer. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

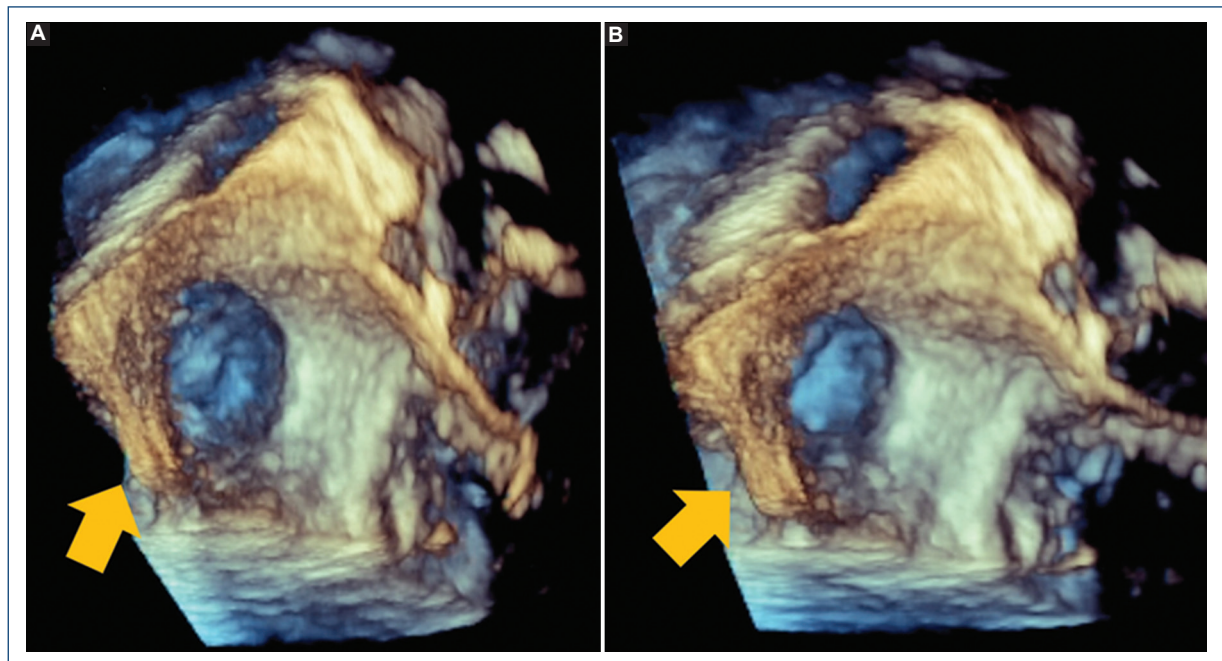


Figure 2. A and B: transesophageal echocardiogram: 3D view from the left atrial appendage showing coumadin ridge (yellow arrow).

Furthermore, this structure was sometimes diagnosed as a false thrombus, and the patient was prescribed anticoagulation therapy with Coumadin™ (Warfarin), hence its name². A Coumadin ridge must be differentiated from other masses, primarily thrombi and tumors^{2,3}. Knowing anatomical variants such as the Coumadin ridge may help prevent unnecessary treatments and interventions.

Funding

None.

Conflicts of interest

None.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that no patient data appear in this article. Furthermore, they have acknowledged and followed the recommendations as per the SAGER guidelines, depending on the type and nature of the study.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

Use of artificial intelligence for generating text. The authors declare that they have not used any type of generative artificial intelligence for the writing of this manuscript or for the creation of images, graphics, tables, or their corresponding captions.

References

1. Rivero Fernández E, Aured Guallar MC, Lasala Alastuey M. Coumadin ridge, occasionally found in the left atrium. *Rev Argent Cardiol.* 2017;85:444.
2. Agostini F, Click RL. More than just the "Q-tip sign". *J Am Soc Echocardiogr.* 2001;14:832-3.
3. Cely Cely A, López-Guarch CJ, Alonso Charterina S. Masas cardíacas: multimodalidad-resonancia magnética cardíaca. *Rev Colomb Cardiol.* 2019;26:111-22.