


Multimodality imaging of cor triatriatum sinister

 **Josip Vincelj**^{1,2*},
 **Sandra Jakšić Jurinjak**³,
 **Ida Vuglec**⁴

¹Institute for Cardiovascular Prevention and Rehabilitation, Zagreb, Croatia

²Josip Juraj Strossmayer University of Osijek, Faculty of Medicine Osijek, Croatia

³University Hospital Dubrava, Zagreb, Croatia

⁴General Hospital Zabok and Croatian Veterans Hospital, Zabok, Croatia

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***ADDRESS FOR CORRESPONDENCE:** Josip Vincelj, Poliklinika za prevenciju kardiovaskularnih bolesti i rehabilitaciju, Draškovićeva 12, HR-10000 Zagreb, Croatia. / Phone: +385-1-4612-290 / E-mail: jvincelj@kbd.hr

ORCID: Josip Vincelj, <http://orcid.org/0000-0003-0064-9128> • Sandra Jakšić Jurinjak, <http://orcid.org/0000-0002-7349-6137> Ida Vuglec, <http://orcid.org/0000-0002-1412-777X>

Introduction: Cor triatriatum sinister (CTS) is a very rare congenital cardiac malformation in which the left atrium (LA) is divided into two chambers by a fold of tissue, a membrane, or a fibromuscular band. The anomaly is usually diagnosed in childhood, but in adult age is less common. Clinical symptoms can mimic mitral stenosis.¹⁻⁵

Case report: We report a case of 54-year-old woman referred to our hospital for transesophageal echocardiography (TEE). She had in history of dyspnea, headache, dizziness and effort intolerance for five years. Physical examination and laboratory values were unremarkable. Two-dimensional and three-dimensional transesophageal echocardiography revealed fibromembranous structure in the dilated LA (**Figure 1** and **Figure 2**). The membrane attached laterally to the junction of the left upper pulmo-

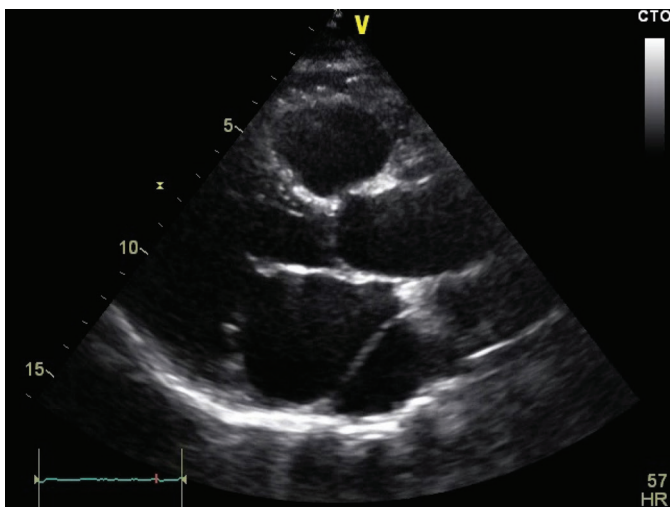


FIGURE 1. Two-dimensional transthoracic echocardiogram parasternal long-axis view showing a fibromuscular membrane dividing the dilated left atrium into two chambers.

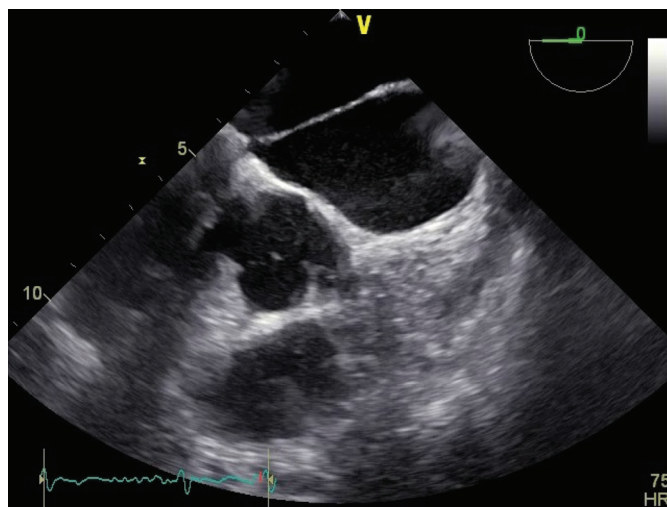


FIGURE 2. Transesophageal echocardiogram demonstrating a fibromuscular membrane in the left atrium.

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nic vein and left atrial appendage, and medially to the interatrial septum. The membrane divided LA into two chambers (proximal chamber and distal chamber). Proximal chamber was receiving the pulmonary veins, and distal chamber contained left atrial appendage and mitral valve orifice. We found few fenestrations connecting the two chambers (**Figure 3**). Multislice computed tomography (MSCT) confirmed diagnosis of CTS (**Figure 4**). Coronary angiography revealed normal coronary arteries. The patient was referred to surgery following a TEE and MSCT diagnosis of CTS. The atrial membrane was excised around its periphery. Recovery from the surgery was uneventful and she was asymptomatic on further hospital stay and follow-up.

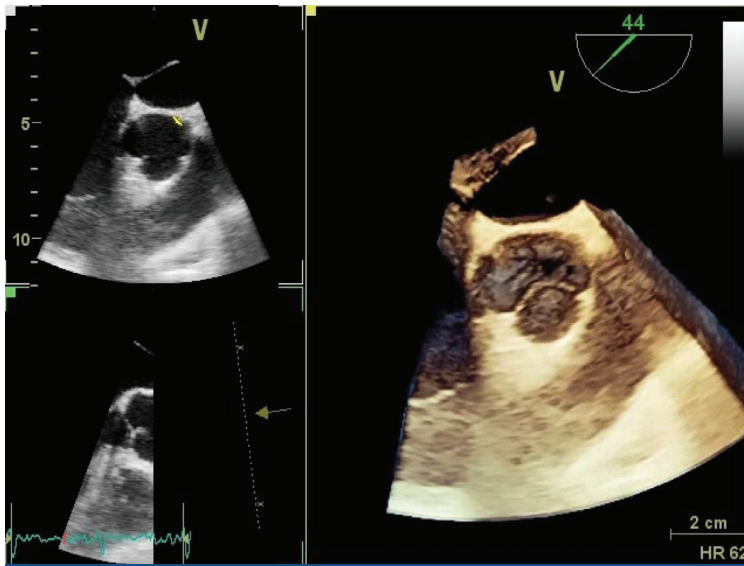


FIGURE 3. Three-dimensional transesophageal echocardiogram showing membrane in the left atrium.

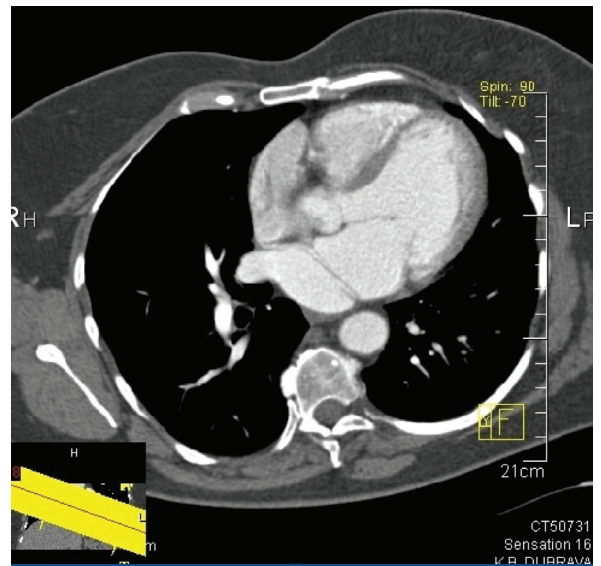


FIGURE 4. Multislice computed tomography showing a membrane dividing the left atrium into two chambers.

Conclusion: The diagnosis of cor triatriatum sinister is paramount because of possibility of surgical repair with excellent long-term prognosis. 3D TEE is noninvasive method for comprehensive imaging and correct diagnosis of this rare congenital cardiac malformation. Surgical repair is an easy and definitive treatment choice of CTS should be considered in patients with left heart chamber obstruction symptoms.

LITERATURE

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