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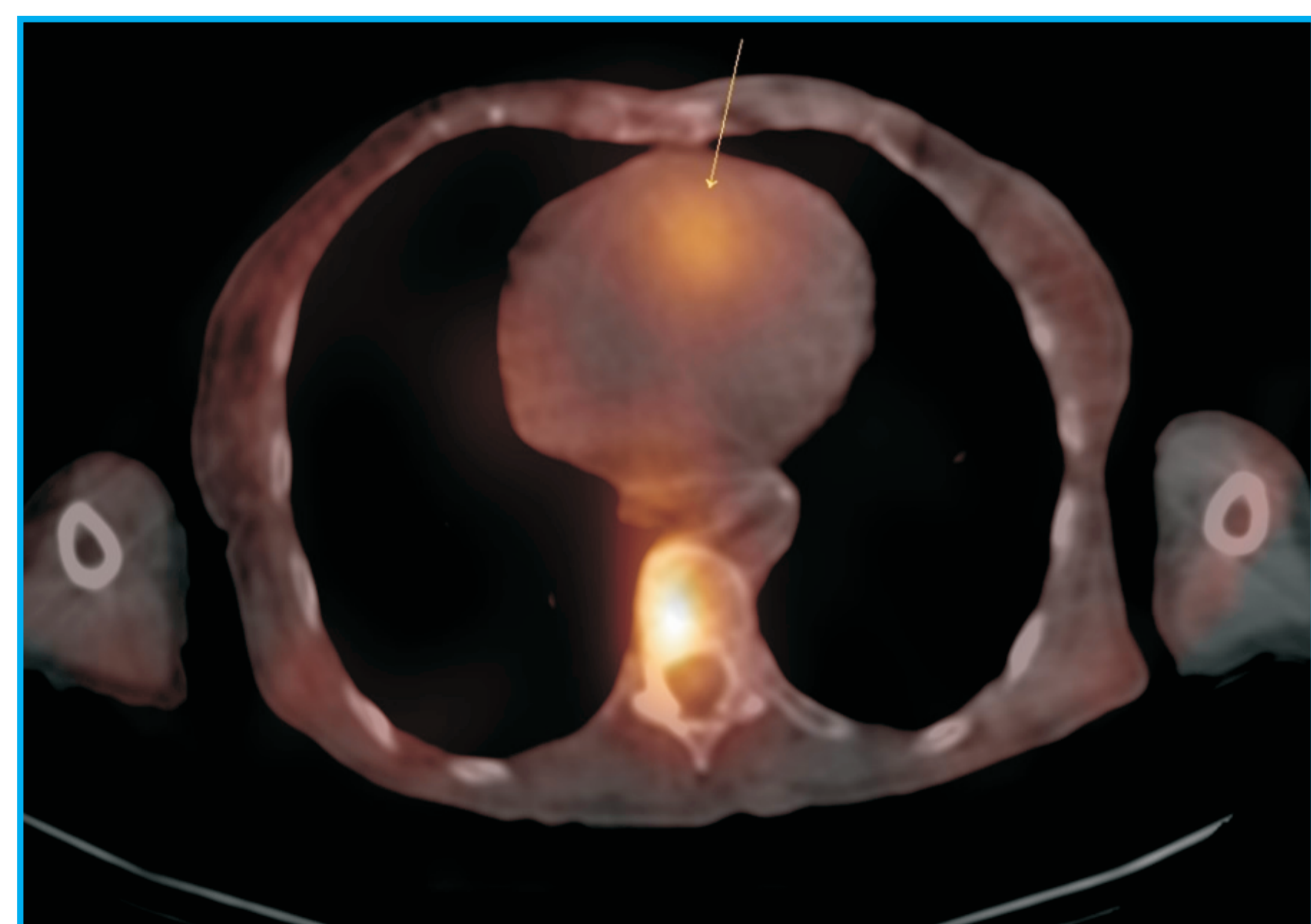
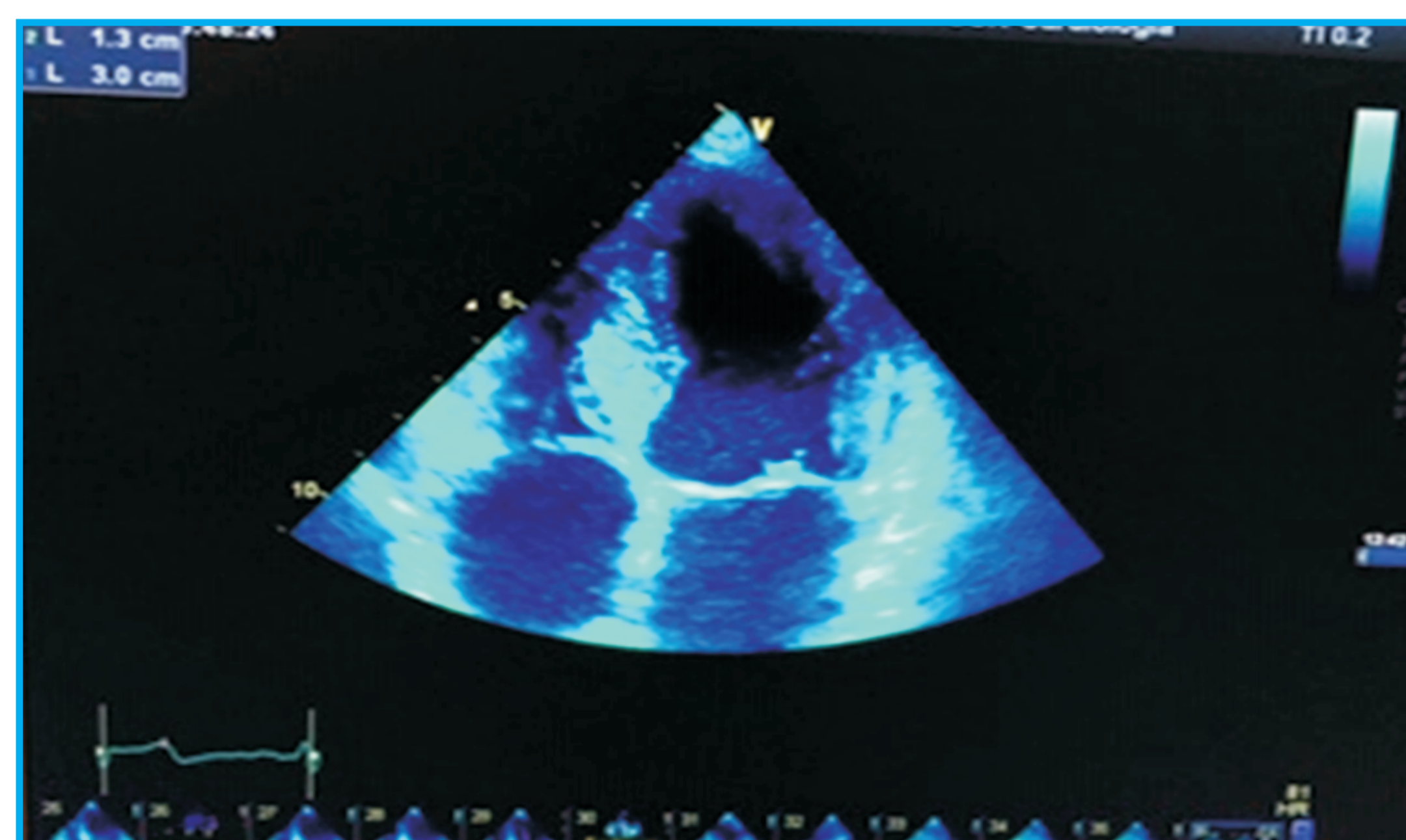
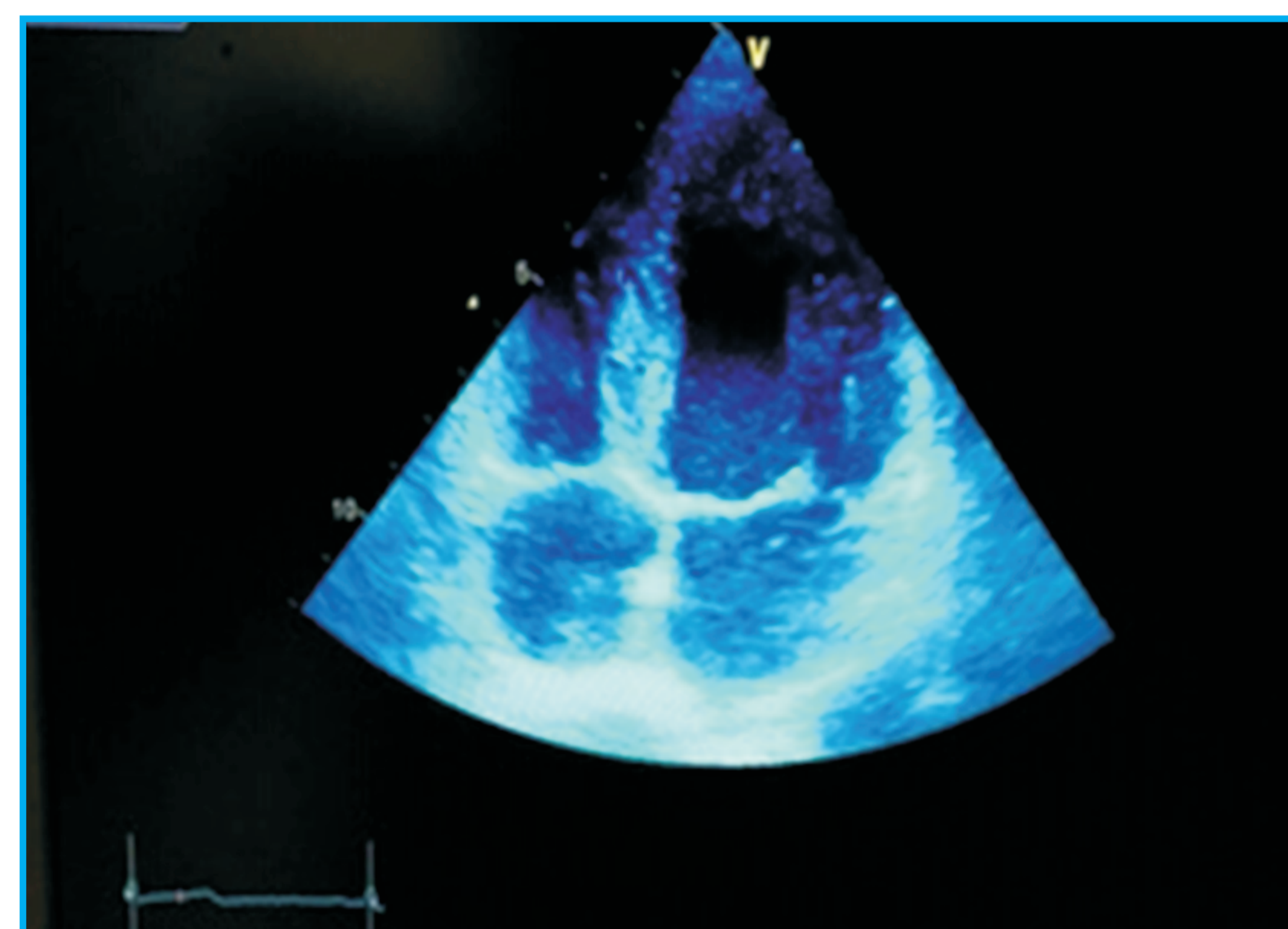
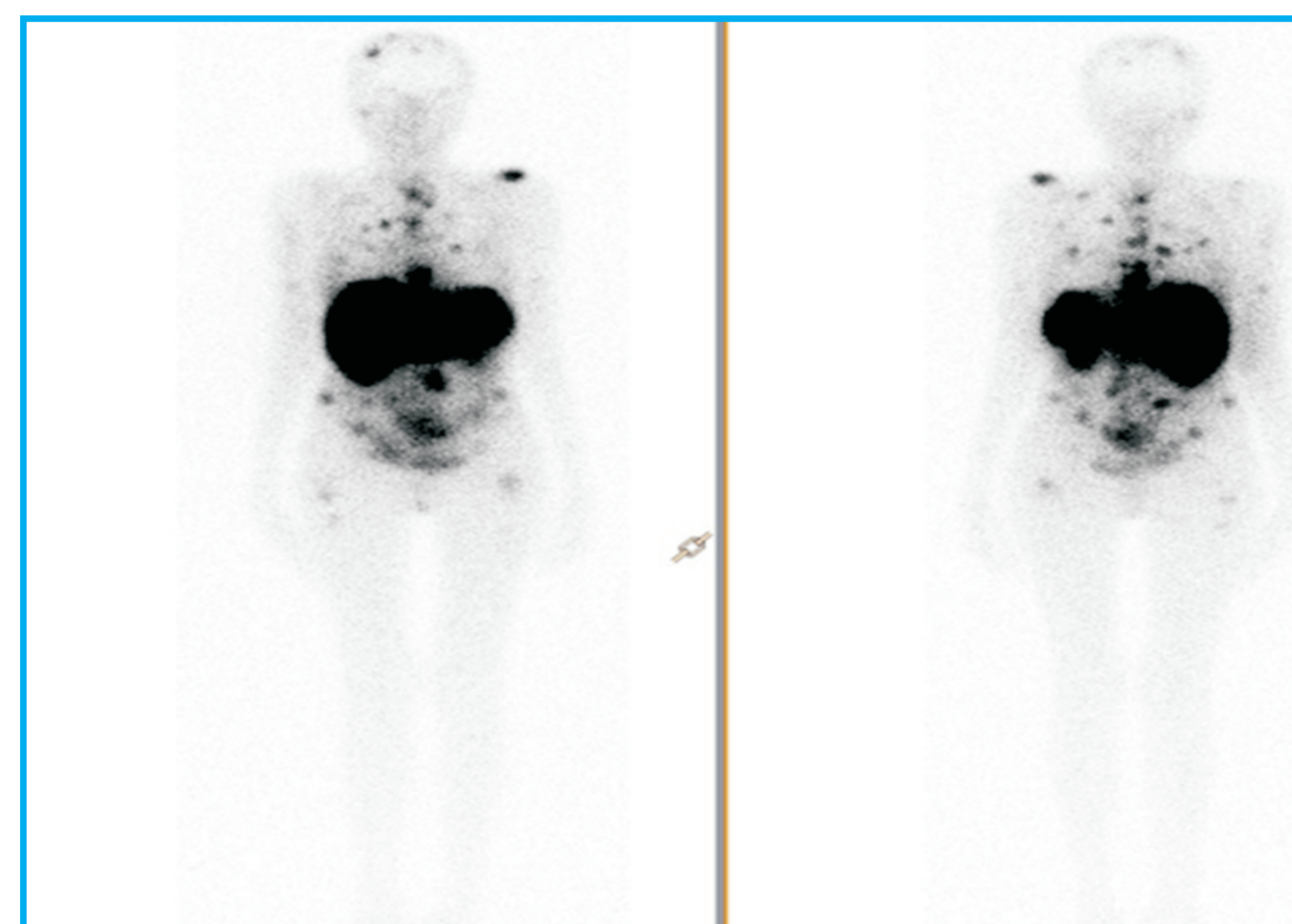
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Background

Neuroendocrine tumors (NET) are rare slow-growing tumors that express somatostatin receptors and are usually diagnosed with metastatic disease. The most common metastatic sites are lymph nodes, bone and liver. Myocardial metastasis are rare and related more frequently to disseminated disease and primary bowel tumors

Case

A 64-year-old female patient was diagnosed in 2015 with primary small bowel neuroendocrine carcinoma with liver and pancreatic metastasis, initially treated with somatostatin analogue and interferon up until 2017. The disease progressed and she developed carcinoid syndrome. OctreoScan (Whole-Body Scintigraphy ¹¹¹In-Octreotide) was used for new staging, which showed disease dissemination to several bone segments and uptake in the right ventricle. Transthoracic echocardiogram showed increased echogenicity of the interventricular septum in its right ventricular portion, with normal aspect and mobility of the heart valves. A radionuclide therapy was employed with 400mCi of ¹⁷⁷Lu-DOTATATE. Echocardiogram was repeated 6 months after the end of treatment, showing a reduction of the hyperechogenic material.



Discussion

The nuclear imaging techniques using somatostatin analogue radiotracer are able to identify early metastasis of NET being more sensitive than other imaging modalities, resulting in more accurate treatment, prognosis and follow up planning. Several therapeutic modalities may be employed Radionuclide therapy is used as first or second line therapy for NETs, but little is known about its applicability and effects on myocardial metastasis, and further studies are needed to establish its future value.

References

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- 2- Utpal H Pangya, Patricia A Pellikka, Maurice Enrique-Sarano, William D Edwards, Hartzell V Schaff, Heidi M Connolly. Metastatic carcinoid tumor of the heart: echocardiography- pathologic study of 11 patients *Journal of American College of Cardiology* , vol 40 issue 7, 2002: 1328-1332.

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