

IMAGING IN INTENSIVE CARE MEDICINE



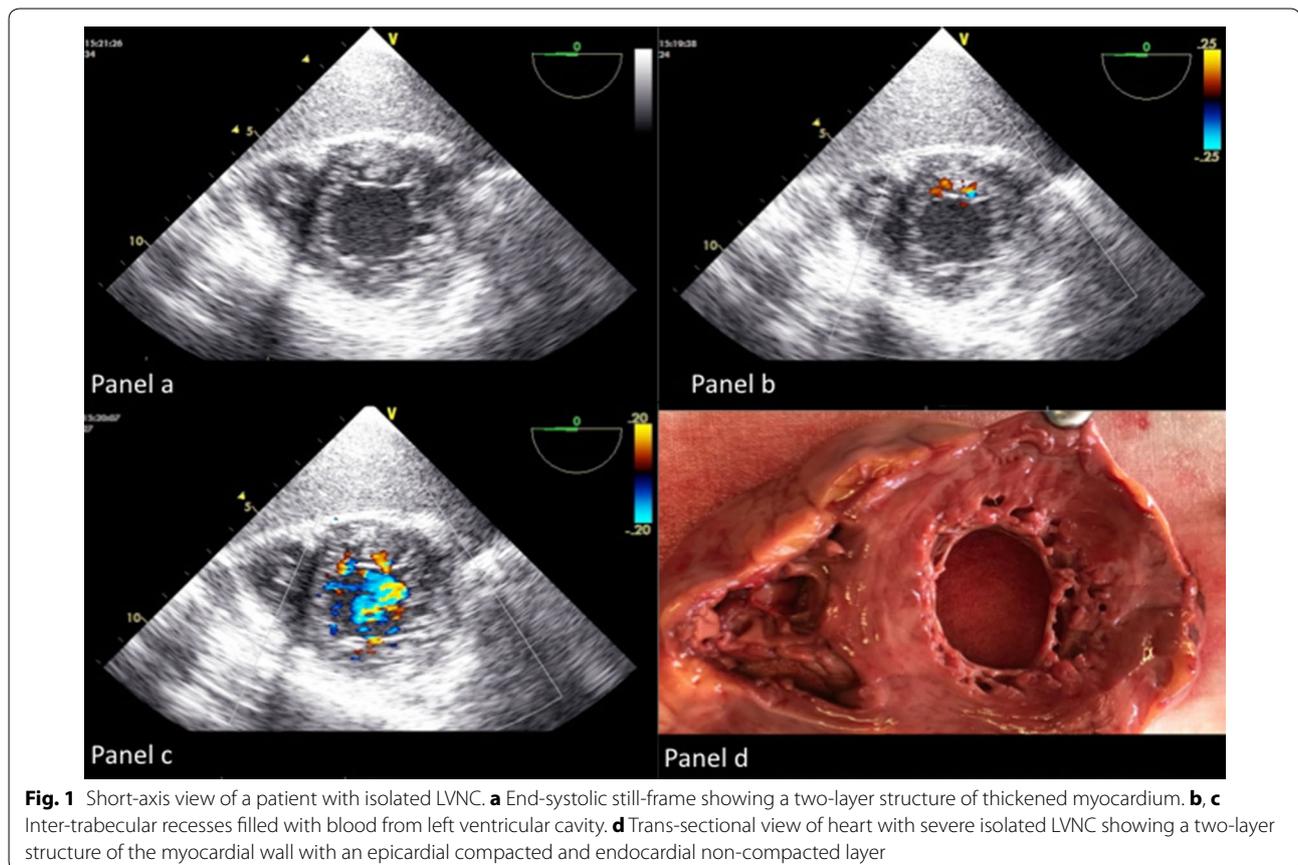
# Weaning failure due to left ventricular non-compaction myocardium

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A 26-year-old woman without previously known cardiac disease was referred to our ICU due to refractory heart failure and impossibility to be weaned from mechanical

ventilation. Echocardiography, performed by a skilled intensivist, showed a dilated left ventricle with prominent trabeculae and deep inter-trabecular recesses involving



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apical, inferior, and lateral walls suggestive of left ventricular non-compaction (LVNC). Systolic and diastolic dysfunctions were also present, together with severe mitral regurgitation. The patients finally died due to refractory cardiogenic shock (Fig. 1).

The differential diagnosis of LVNC includes hypertrophic or dilative cardiomyopathy, endocardial fibroelastosis, LV apical thrombosis, endocardial localization of systemic candidemia. The diagnosis of LVNC is based on prominent appearance of LV trabeculae and ratio of compacted to non-compacted LV wall [1].

Once considered a rare form of cardiomyopathy, LVNC is being increasingly recognized, with higher prevalence in young African subjects [2].

The classical triad of heart failure, ventricular arrhythmias, and systemic embolic events constitutes typical complication in patients with a more advanced disease. There is no specific therapy for patients with LVNC except for the timely institution of evidence-based standard heart failure treatment in asymptomatic patients with worsening LV systolic function to prevent the occurrence of complications. LVNC should always be suspected in case of difficult to wean patients with recurrent heart failure not otherwise explained [3, 4].

#### Electronic supplementary material

The online version of this article (<https://doi.org/10.1007/s00134-019-05737-4>) contains supplementary material, which is available to authorized users.

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#### Compliance with ethical standards

#### Conflicts of interest

The authors declare that they have no conflicts of interest.

#### Ethical approval

The present manuscript has been approved by the local ethics committee: Approval number 2019/25744.

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