Constrictive pericarditis due to tuberculous etiology in active lymphoproliferative disease: diagnostic challenge

Thalita González[1], Fernanda Costa [1], Fernanda Andrade[1], Letticya Machado [1], Ludmila Barberino [1], Marcel Almeida [1], Fernanda Santos [1], Valéria Buccheri [1], Marcelo Belesso [1], Rodrigo Velasques [1], Carolina Silva [1], Cristina Bittar [1], Isabela Costa [1], Marília Santos [1], Silvia Fonseca [1], Stéphanie Rizk [1], Roberto Kalil Filho [2], Ludhmila Hajjar[1,2]

[1]Cancer Institute of São Paulo, University of São Paulo and [2]Heart Institute of São Paulo, University of São Paulo

BACKGROUND

- Pericardial Diseases are frequent complications in the cancer patient and may be related to some neoplasms (lymphomas, lung and esophagus), chemotherapy, radiotherapy and opportunistic infections.
- Constrictive Pericarditis (CP) is present in only 4% of these cases. We present a case of Hodgkin`s Disease (HD) involving the pericardium.

CASE REPORT

- Female 26 years-old without comorbidities, diagnosed with HD on chemotherapy programming, triggered progressive dyspnea associated with orthopnea.
- Cardiac tamponade with signs of restriction to ventricular filling was evidenced in by Transthoracic Echocardiography (TTE), and the patient underwent emergency relief pericardiocentesis. Serous fluid and biopsy compatible with nonspecific granulomatous inflammatory tissue, thefore began ABVD regimen (Dacarbazine, Doxorubicin and Vinblastine).
- After the final cycle of ABVD regimen, she started with daily afternoon fever and dyspnea with detection of moderate pericardial effusion without restriction, moderate pleural effusion and febrile neutropenia.
- PET-CT ruled out recurrence of pericardial lymphoproliferative disease and suggest Acute Pericarditis (AP).
- Cardiac Magnetic Resonance Imaging (CMRI) was performed and confirmed AP – Figure 1.
- Colchicine and prednisone was prescribed. In outpatient return, she related fever and dyspnea.
- Echo (TTE) showed right atrial thrombus and long-term catheter, and a new CMR revealed 3 moving images in the right atrium, close to the central venous catheter, in tricuspid supravalvular topography and demonstrated significant thickening / fibrosis of pericardial leaflets, especially parietal, measuring up to 0.6 cm, suggestive of CP.

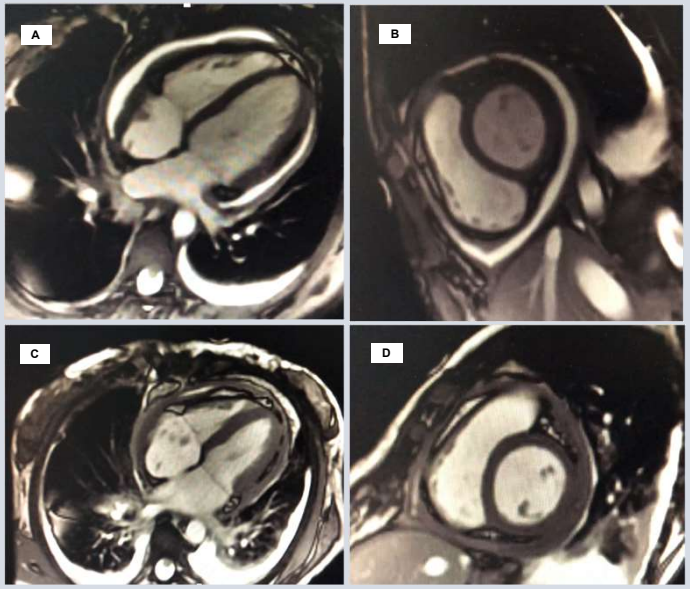

Figure 1 – CMR showing cine images – A: 4-chamber; **B:** Short-axis with moderate to large pericardial effusion; **C** and **D:** Cine CMR with pericardial thickening.

DISCUSSION

- Pericarditis is the most common disease of the pericardium and involves inflammation of the pericardium with or without pericardial effusion.
- Acute pericarditis mainly affects the younger population, and it is usually benign and self-limiting. However, pericarditis with effusion is a known complication of various types of cancer. Between them lung, breast, gastrointestinal, urogenital, hematological malignancies and too primary cardiac tumors.
- Malignant involvement of the pericardium can manifest as pericarditis, pericardial effusion, cardiac tamponade or CP.
- The pericardial disease can be the first manifestation of malignancy, and an important clinical question is whether to pursue a search for an occult cancer as the etiology for the pericardial disease.
- The clinical presentation is variable and in immunocompetent patients during a treatment of active lymphoproliferative disease is uncommon. Proper and early diagnosis can modify the course of the disease and avoid complications.
- The goals of treatment of acute pericarditis are the relief of pain, resolution of inflammation and prevention of recurrence. Because of limited available data to guide management of acute pericarditis specifically in cancer patients, most treatment recommendations are based on small cohort studies.
- This case demonstrates that different etiologies of PD may be present in the same patient. Although HD is a frequent cause of PD and CP, other diagnoses should always be ruled out in these patients.

REFERENCES

1. Burazor I, et al. Malignant pericardial effusion. Cardiology 2013;124:224–232.
2. Quint LE. Thoracic complications and emergencies in oncologic patients. Cancer Imaging. 2009;9 Spec No A:S75–S82.
3. Sogaard KK, et al. Pericarditis as a marker of occult cancer and a prognostic factor for câncer mortality. Circulation. 2017;136:996–1006

DISCLOSURES

All the authors have no conflicts of interest to disclose.