Symptomatic charcoal heart

Mariana Faustino1, João Abecasis2, Antonio Freitas1, Rosa Gouveia1, and Victor Gill1,2

1Servicio de Cardiología, Hospital Prof. Doutor Fernando Fonseca EPE. IC 19, Amadora, Portugal; 2Unidade Cardiovascular, HPP Hospital dos Lusíadas, Lisbon, Portugal; and
3Servicio de Anatomía Patológica, Hospital de Santa Cruz, Centro Hospitalar de Lisboa Ocidental, Lisbon, Portugal

*Corresponding author. Tel: +351 962777510, E-mail: marianafaustino85@gmail.com

A 47-year-old woman with a past history of left choroidal malignant melanoma submitted to eye enucleation 13 years before presented to the emergency department because of pleuritic chest pain, shortness of breath, and tiredness.

Transthoracic echocardiography revealed pericardial thickening and multiple confluent hypoechoic nodular images, extending into the adjacent myocardium (Panel A, arrow, Supplementary data online, Clip S1). For tissue characterization, a cardiac magnetic resonance was performed, confirming diffuse pericardial thickening and multiple myocardial masses with heterogeneous behaviour and hyperintense sign in T2- and T2-weighted sequences, respectively, positive for perfusion and with areas of delayed enhancement along the masses and within the whole pericardium (Panels B–E, Supplementary data online, Clip S2–S5). These findings were compatible with the myopericardium malignant tumour involvement. A fluorodeoxyglucose positron emission tomography scan excluded extracardiac tumour extension/foci (Panel G). Conventional histology (Panel H, haematoxylin/eosin) and immunohistochemistry, positive for neural crest derived markers HMGB-45 and S-100-protein, confirmed malignant melanoma metastasis on cardiac needle biopsy. The patient was put on dacarbazine chemotherapy with symptomatic relieve at a 6-month follow-up period.

Advanced metastatic malignant melanoma has a very high propensity for heart metastatization, being noted in a significant number of patients at autopsy. Nevertheless, exclusive and symptomatic cardiac extension with main pericardial affection-related complaints is rare, namely for primary eye tumours.

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.

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