An unusual complication occurring after cardiac radiofrequency ablation: the devil wears DRESS

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A 37-year-old male underwent trans-catheter ablation for symptomatic ventricular ectopia. The focus was interrupted with radio-frequency erosions in the left ventricular mitro-aortic contiguous. The patient was discharged the day after procedure on aspirin 100 mg in/die. Two days later, he was readmitted for malaise and syncope. The ECG (see Supplementary material online, Figure S1) showed sinus tachycardia, diffuse ST-segment elevation and PR-segment depression. Blood tests showed neutrophilic leukocytosis, increase of cardiac and liver biomarkers. Cardiac magnetic resonance scan showed mild left ventricular systolic dysfunction with subepicardial ‘patchy’ late gadolinium enhancement (Panel A) which was suggestive for acute myocarditis. Pleural and pericardial effusion were also present with diastolic atrial compression (Panel B). The computerized tomography showed diffuse peritoneal effusion (Panel C). The first hypothesis was a subacute pericardial perforation. However, 2 days later a maculopapular rash appeared on the chest (Panel D) with glossitis. The research of auto-antibodies, anti-streptolysin, and serology for common viruses were all negative. We found an increase of systemic inflammation markers, of interleukin 5 sub-population with a reduction of CD4+ lymphocyte and a modest increase of eosinophil count. Prednisone was started (50 mg b.i.d.) in the hypothesis of a drug reaction with a complete resolution of pleural, pericardial effusion (see Supplementary material online, Figure S2), and skin rash in few days.

The final diagnosis was drug rash with eosinophilia and systemic symptoms syndrome (DRESS), a rare, potentially fatal type IV-b drug adverse reaction characterized by multi-organ damage. Clinical manifestations of DRESS arise 1—8 weeks after the administration of the culprit drug. Bisoprolol started 1 month before reaction, was the most likely responsible drug of the systemic reaction in our case.

Panel (A) Four-chamber cardiac MRI shows pericardial and bi-lateral pleural effusions (white arrows). Sub-epicardial late gadolinium enhancement of the antero-lateral mid and distal wall is suggestive for acute myocarditis (asterisk). (B) Two-dimensional echo apical four-chamber view shows pericardial effusion with early diastolic compression of the right atrial-free wall. (C) Abdominal CT shows diffuse peritoneal effusion which is more evident around the liver, between the bowel loops and in the pelvic cavity (white arrows). (D) Maculopapular rash.

Supplementary material is available at European Heart Journal online.

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