THREE CASES OF KAWASAKI DISEASE DEVELOPED AT YOUNG AGE AND WITH A LONG TERM FOLLOW UP

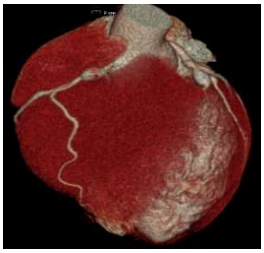
Zagarese G., Varriale A., Pesarini G., Cristofaletti A., Sandrini C., Ribichini F.L., Prioli M.A.
Division of Cardiology, Department of Medicine, University of Verona School of Medicine, Verona, Italy

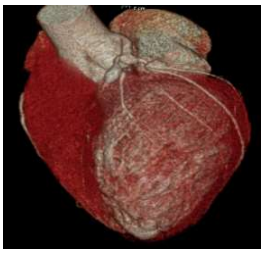
Introduction

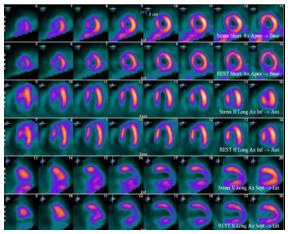
Kawasaki disease (KD) is an acute, self-limited vasculitis of unknown etiology that occurs predominantly in infants and young children. It is now the most common cause of acquired heart disease in children in developed countries. It was first described in Japan in 1967 by Tomisaku Kawasaki. The first reports about diagnosis and therapy were published in the early '80. The first AHA guidelines date back to 2004, which established a precise management of the patients with KD. We reported three cases of KD developed during the years in which diagnosis, therapy and follow up indications were still at an embryonic state. This led to a development of an advanced coronary disease, with several acute complications and chronic residues.

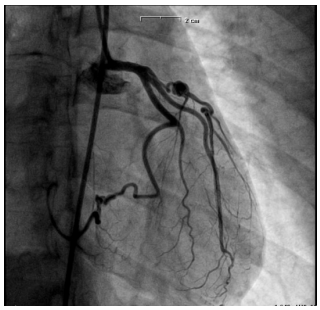
Case 1

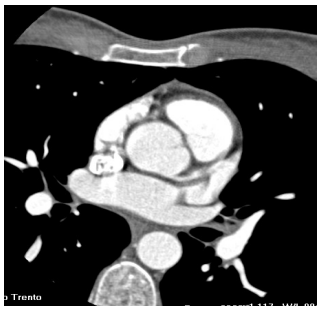
G. A., male, developed KD in 1993, at age 1 year old, which complicated with multiple coronary aneurysms. One year later an echocardiography was repeated and it showed left coronary thrombosis without signs of acute myocardial infarction. A coronary computed tomography angiography (CCTA) performed at the age of 17 showed persistence of the coronary aneurysms, which involved both the left and the right coronary arteries. The pharmacological therapy consisted in antiplatelet drugs and later a low dose of an antihypertensive drug was added. He was then followed up with periodical functional and imaging tests, which showed stability of the coronary aneurysms. Only a miocardial scintigraphy showed signs of inducible ischaemia in the territory of the anterior descending artery. The patient remained asymptomatic, even when practicing mild physical activity.









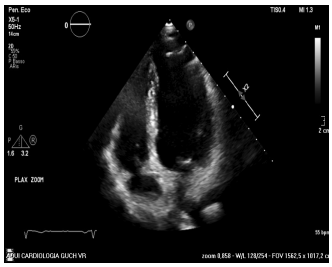


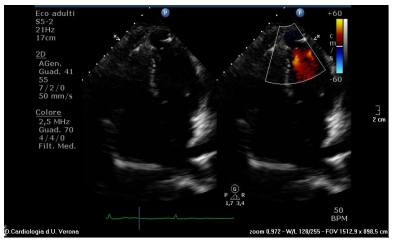
Case 2

G.Z., female. The patient developed KD in 1990 (age 6 months). A coronary angiography performed at the age of 22 years detected a right coronary artery occluded at the origin, with an effective hetero-coronary collateralization to the distal-middle segment; besides, the angiography showed evidence of stenosis at the proximal segment of the anterior descendent artery and two aneurysms, at the proximal-medium and medium segment of the artery with a satisfactory distal flow. A coronary computed tomography angiography was performed on March 2019, and confirmed the stability of the vascular framework. During the all timing of the follow-up the patient was treated with dual antiplatelet therapy and remained asymptomatic.

Case 3

V.L., female. The patient developed Kawasaki Disease in 1976 (age 3 years) which complicated in the acute phase with apical miocardial infarction treated coservatively. In 1987 and later on in 2001 two control coronary angiographies were performed revealing diffuse ectasia and tortuosity extended to the whole tract of the anterior descending artery without angiographically significant critical lesions, a circumflex artery free from angiographically significant stenosis and an hypoplastic right coronary artery. Subsequent echocardiographic follow ups revealed an apical aneurysm of the left ventricle, compatible with the natural evolution of the occurred myocardial infarction. Size of the aneurysm remained stable throughout the follow up period.





Conclusions

Kawasaki disease is a relatively new disease and it took years since its first discovery to find and establish precise diagnostic and therapeutic indications.

We reported three cases of KD developed at young age, none of which benefited in the acute phase of the disease from intravenous immunoglobulin therapy, which is now a pivotal treatment to reduce the incidence of coronary abnormalities. Moreover, cardiac echocardiography either was not yet used in this context (case 3), or its systematic use was only at the beginning (case 1 and 2).

With these three case reports we have highlighted the possibility of finding a population of adult patients who may come to medical attention for acute events, such as myocardial infarction, presenting complicated and disastrous angiographic pictures: it is plausible that such a population, in addition to cardiovascular risk factors, may have developed a KD in the years of lacking diagnostic and therapeutic options.