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Letters

TO THE EDITOR

RASopathy Syndrome

Do Not Overlook Mitral Valve Anomalies!

We read with great interest the recent case report by Naneishvili et al[1] regarding the presence of mitral valve abnormality in a patient with Costello syndrome (CS) representing the first experience with this genetic condition.

Despite its rarity, CS now plays a significant role among RASopathy syndromes, a heterogeneous group of similar genetic conditions, sharing similar cardiac phenotypes and the same molecular disorders in the spectrum of the RAS-MAPK cascade.

Mitral valve (MV) disease is often associated either with the spectrum of hypertrophic cardiomyopathy or with a single cardiac spectrum. Thereby, it represents a specific marker of clinical complexity in RASopathies.[2]

Analyzing a multicentric European cohort with >400 patients with RASopathy disorders, our group has previously documented that mitral dysplasia or prolapse with or without insufficiency or stenosis is frequently associated with these genetic conditions.[3] In line with previous experiences, our results outlined that the anatomical characteristics of MV disease, such abnormal and dysplastic anterior leaflet insertion, represent a definite red flag for the diagnosis of CS even in the first year of life, when phenotypical diagnosis is particularly challenging.[4]

Finally, the significant role of MV disease in the cardiac outcome has been highlighted by the first CARNET experience, where MV defects were frequently found in patients who experienced cardiac death.[5]

Ultimately, in our opinion, MV disorders should not be regarded a minor defect in all RASopathies. In fact, in a group of clinically overlapping syndromes where the early diagnosis can be difficult or crucial to the prognosis, an observant approach to the cardiac spectrum appears vital and should never overlook the valve phenotypes, which could be a key to unveil the genetic phenotype.

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The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the Author Center.

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