Sudden cardiac arrest in the setting of coronary artery ectasia: Mechanistic and clinical perspectives. Author's reply

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We would like to thank Yalta et al. [1] for their interest in our report on sudden cardiac arrest (SCA) during diagnostic coronary angiography in a patient with coronary artery ectasias (CAE) [2].

We believe that coronary artery ectasias constitute a very important clinical problem, both diagnostic and therapeutic, therefore, the occurrence of such a serious complication as SCA in our patient with CAE motivated us to describe this case. Unfortunately, the limited number of words in the clinical vignette prevents a thorough discussion of all clinical aspects. Therefore, we are especially grateful for all the valuable comments of Yalta et al., to which we can respond here.

Yalta et al. presented possible causes of SCA in patients with CAE in clinical implications:

- Myocardial ischemia due to slowed flow at the macrovascular level. We consider this aspect to be the most likely cause of the angina pain reported by our patient.
- Severe dysfunction of coronary microcirculation responsible for myocardial ischemia. We cannot rule out microcirculation disorders in our patient, but currently, we are not planning additional tests, such as positron emission tomography. Further diagnosis of the causes of ischemia in the patient depends on the further clinical course.
- Possible vasospastic component requiring appropriate pharmacological treatment [3]. In our patient, we did not find a typical history of vasospastic angina. The patient received typical pharmacological treatment (acetylsalicylic acid 75 mg/day, cilazapril 5 mg/day, amlodipine 5 mg/day, bisoprolol 3.75 mg/day, and rosuvastatin 10 mg/day). Trimetazidine 2 × 35 mg/day was added to the treatment.
- Occurrence of acute coronary syndromes as a result of peripheral embolism of the distal sections of coronary arteries. Our patient has not had any acute coronary syndrome to date.
- Mechanical complications of ectatically dilated arteries (rupture, fistulas).
- Percutaneous and cardiac surgical interventions in patients with advanced coronary artery ectasias resistant to pharmacological treatment. Qualifying these patients for interventional treatment is extremely difficult and requires joint decision-making within the Heart Team and often additional hemodynamic tests, e.g. fractionated flow reserve [4].

Analyzing all possible SCA mechanisms in our patient, we considered slow flow of the injected contrast agent in the ectatically dilated left coronary artery to be the most likely cause. We referred our patient for further outpatient cardiological care with the recommendation for regular electrocardiography monitoring using the Holter method. However, the in-depth diagnostics (positron emission tomography, imaging of the coronary arteries) depend on the patient's clinical condition.

To sum up, the presented case and demonstrated clinical implications related to coronary artery ectasias indicate the need for special cardiological care for these patients, taking into account various diagnostic tests and therapeutic methods. However, maintaining registries and long-term observational studies of CAE patients would allow for the development of recommendations for the management of these patients in long-term care.

Article information

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