use tolvaptan immediately after admission. We always use a low dose of furosemide before initiating tolvaptan. This way, we are able to identify the signs of unexpected hypotension. Of course, because our findings were derived from a small sample size, they should be interpreted with caution and continue to generate hypotheses. Due to characteristics such as physical and social frailty, elderly patients are more prone to drug side effects and organ dysfunctions resulting in long periods of hospitalization. Therefore, after correct diagnosis of the clinical scenario, the initiation of tolvaptan within 24 hours after furosemide use can improve quality of life after discharge without a reduction in physiological activity.

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Simultaneous subacute thrombosis in two new-generation drug-eluting stents in different vessels

To the Editor,

We report a rare case of simultaneous subacute thrombosis in 2 new-generation drug-eluting stents (DES) in different vessels after cessation of ticagrelor therapy for 3 days. A 66 year-old man was admitted to our emergency department complaining of acute, severe chest pain. He had hypertension and diabetes mellitus for 20 years, was a smoker, and had a history of stent implantation in the left anterior descending artery (LAD) 6 years ago. His electrocardiography results (ECG) revealed inferior ST elevation. An emergent catheterization was performed, revealing a totally occluded proximal right coronary artery (RCA) and a critical thrombotic lesion on the left circumflex artery (LCX). Angioplasty was performed and 2 everolimus-eluting stents (PROMUS Element, 2.5x16 mm and 2.5x20 mm; Boston Scientific Corp., Marlborough, MA, USA) were deployed in the proximal RCA and 1 everolimus-eluting stent (PROMUS Element, 3.0x24 mm) in the mid LCX. A final coronary angiography showed patency of the 2 vessels with Thrombolysis in Myocardial Infarction (TIMI) 3 flow after percutaneous coronary intervention (PCI). He was discharged on hospital day 3 with a recommended course of treatment of dual antiplatelet therapy (aspirin 100 mg daily and ticagrelor 90 mg twice daily).

After 10 days, the patient was readmitted to the emergency department with severe chest pain. ECG revealed inferoposterior ST segment elevation. The patient indicated that he had stopped taking the ticagrelor therapy 3 days earlier because of hematuria. He was hemodynamicly stable and taken to the catheterization laboratory for primary PCI, which revealed totally occluded proximal RCA and mid LCX at the same time, the site of the stents. Successful primary PCI with angioplasty was performed for both vessels with transradial access and a final angiography revealed TIMI 3 flow distal to the coronary stents. After 4 days of observation, he was discharged with a strict recommendation to continue dual antiplatelet therapy for at least 1 year.

Stent thrombosis (ST) is a challenging problem that can lead to serious clinical consequences. In addition to patient characteristics or procedure factors, inadequate dual antiplatelet therapy is the main cause (1). Simultaneous subacute thrombosis of 2 new-generation DESs in different vessels is rare and there is little in the literature discussing this condition. Most cases of ST in the literature occurred in a single coronary vessel, and there are still some rare cases reporting simultaneous ST in multiple coronary vessels for bare metal stents and first-generation DESs (2, 3). But there are few reports about the same condition for new-generation DESs (4, 5).

In conclusion, simultaneous ST in different new-generation DESs in multiple coronary vessels was extremely rare, but still a possible complication of PCI. This case strongly suggests that it be ensured that patients are properly educated about the importance of drug use and the potential severe consequences of antiplatelet therapy cessation. Our case also demonstrates that the use of multiple stents, irrespective of stent type, in multiple coronary artery lesions should be undertaken with great attention, especially in high-risk patients, such as acute myocardial infarction.

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Short-term evolution of cardiac structure and function in patients on maintenance hemodialysis for end-stage renal disease: A quasi-experimental, non-randomized, evaluation echocardiography study in Cameroon, sub-Saharan Africa

To the Editor,

Adequate hemodialysis has been shown to improve volume overload and uremia in the short term. The short-term modifications to cardiac structure and function with hemodialysis in chronic kidney disease have not been prospectively studied in our setting.

Between December 2016 and May 2017, we carried out a quasi-experimental, non-randomized evaluation study in 2 hemodialysis centers: the university teaching hospital and the general hospital in Yaoundé, Cameroon. We included consenting adults aged ≥18 years, with an indication of maintenance hemodialysis. We collected baseline echocardiographic data before initiating dialysis, and after 60 days of thrice-weekly sessions of maintenance hemodialysis. Measurements were collected with a SonoScape S8 echograph (SonoScape Medical Corp., Shenzhen, China) by the same cardiologist, blinded to the pre-dialysis measurements.

A total of 31 patients with end-stage renal disease were recruited for the study. At day 60, 20 participants completed the study, and 11 were excluded from the analysis.

Of the 20 patients, there were 16 (80%) men. Their mean age was 45±14 years (range: 22-70 years). The most frequent abnormalities were diastolic dysfunction in 19 (95%), with 5 grade 1 (26.3%), 7 grade 2 (36.8%), and 7 grade 3 (36.8%); left atrial (LA) dilation in 14 (70%); and left ventricular hypertrophy (LVH) in 12 (60%), with 10 concentric LVH and 2 eccentric LVH.

All systolic dysfunction (100%) was mild (ejection fraction: 40-50%).

After the 16th hemodialysis session, LV mass index decreased by 15% (p=0.01), and LA volume decreased by 40.1% (p=0.01).

The LV ejection fraction increased by 4.4% units overall (p=0.67). The overall E/Ea ratio decreased by 23.3% (p=0.07). The improvements in LV structure and function were significant in those with initially abnormal values.

The rate of echocardiographic abnormalities in this study was similar to that reported by other authors (1, 2). Ejection fraction is an insensitive marker of LV function compared with myocardial deformation-strain and strain rate (3). Covic et al. (4) also noted a marginal increase in LV ejection fraction after 22 months of follow-up in a cohort of 150 patients. LV diastolic dysfunction with elevated filling pressure (E/Ea ratio) improved significantly. Hampl et al. (5) reported a significant reduction in LV mass in 22% of patients after 18 months of follow-up. We have shown that the reduction in LV mass with twice-weekly hemodialysis occurs in as little as 2 months. LV hypertrophy can be a result of volume and or pressure overload. We noted a marked reduction of almost 50% in LA volume. This suggests that LA volume assessment is a sensitive marker of changes in LA size. Similar reductions were reported by Covic et al. (4). We did not find any determinant of improvement of LV structure and function.

In conclusion, The LV mass and LA size were significantly reduced with hemodialysis after the 16th session. LV diastolic function also significantly improved. We suggest further studies be carried out on a larger sample and include strain rate in assessing LV systolic function.

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