



CASE STUDY

A MULTI COMPLICATED OSTIAL RIGHT CORONARY ARTERY OCCLUSION: MEDICAL IMAGING

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ABSTRACT

The proximal occlusion of the right coronary artery can be predicted of fatal haemodynamic and rhythmic complications. We have illustrated this fact in a young man who presented with complicated right ventricular infarction and who was rescued by clinical and electrical diagnosis and then by immediate angioplasty.

Key words:

Right ventricular infarction, Complications,
Proximal occlusion.

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INTRODUCTION

A 45 years old men, hypertensive, admitted to emergency for cardiogenic shock. The examination found an arterial pressure at 60/30 mmHg with coldness of the extremities. The ECG tracings showed a regular atrial fibrillation rhythm with an ST-segments elevation in the leads V1; V3R and V4R [Figure 1]. The state of shock was partially recovered by filling with physiological saline.

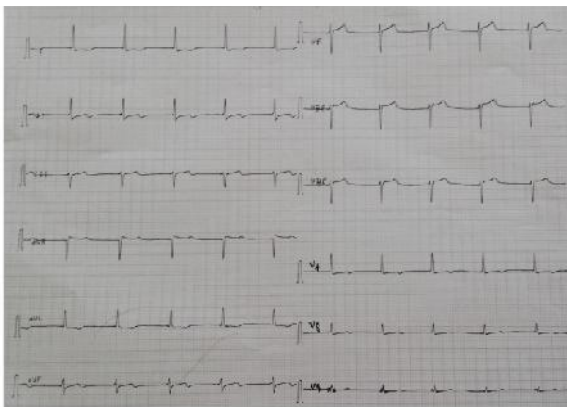


Figure 1. EKG objectiving ST elevation in the leads V3R and V4R, regular slow rhythm without P wave

A double platelet anti-aggregation, anticoagulation as well as a statin was delivered to the patient. Echocardiography demonstrated good left ventricular function with right ventricular systolic dysfunction. Coronarography revealed an ostial occlusion of the right coronary artery [Figure 2], which was repaired with percutaneous coronary stenting [Figure 3; 4].

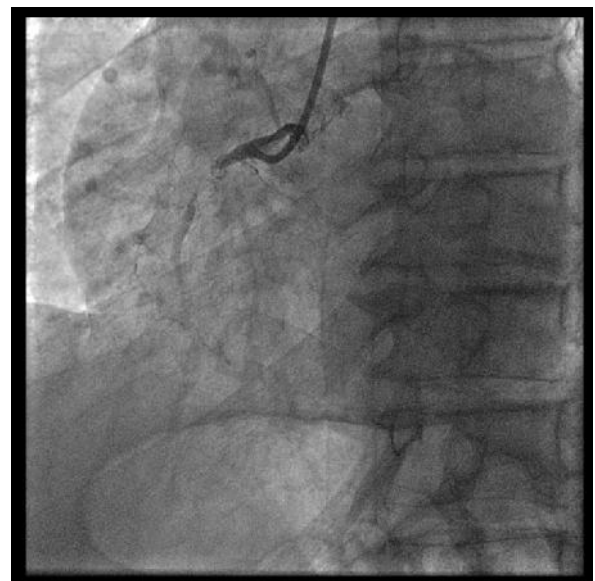


Figure 2. Coronarography: Proximal occlusion of right coronary artery

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The evolution was marked by the complete recovery of the hemodynamic state, the sinus rhythm and the beginning of improvement of the right ventricular systolic function.

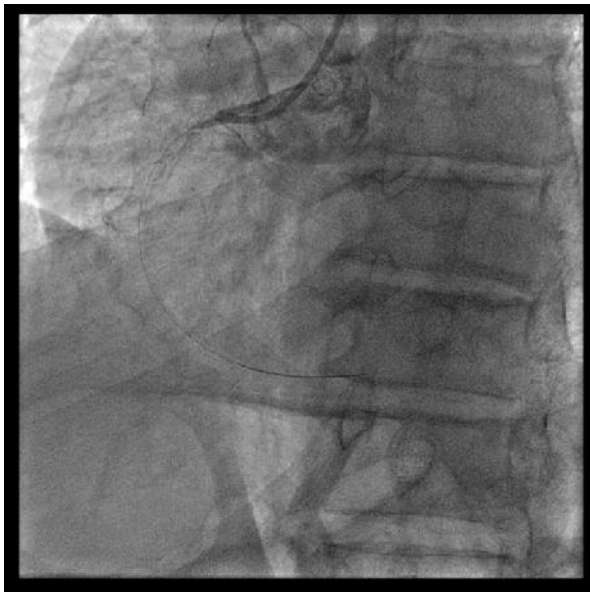


Figure 3. Angioplasty : passing of catheter guide



Figure 4. Angioplasty : final result

The new AHA / ESC recommendations describe the implementation of an 18-lead ECG as a recommendation I C for coronary syndromes (Patrick, 2013; Gabriel steg, 2012).

On the classical derivations, V1 and V2 can orient towards a right extension of the ischemia (Onur Baydar *et al.*, 2016). Urgent revascularization by primary angioplasty improves and conditions early normalization of ventricular function and reduces intra-hospital mortality (Hanzel *et al.*, 2006). The occurrence of potentially lethal complications (rhythmic, conducting and hemodynamic) further aggravate the prognosis (Mehta *et al.*, 2001). 17% mortality in the presence of a straight extension (Hamon *et al.*, 2008). Primary angioplasty improved short-term prognosis (Keeley *et al.*, 2003).

Conclusion

The particularity of the right ventricle is responsible for the advent of various complications involving an adequate diagnostic approach and imposes a very urgent and specific management with the validation more and more of new therapeutic methods to fight the putting into play of the prognosis in short term.

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