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Introduction

Posto-septal accessory pathways account for 34.5% of the total. Of these, 36% are located within the coronary sinus (CS). Its ablation requires technical alternatives to avoid damage to surrounding tissues, especially branches of the right coronary artery.

Case report

A 22-year-old man was admitted for ablation of an accessory left septal-septal accessory pathway (PSE) (Figure 1). There was a prior attempt of ablation within the SC in another service, resulting in transient loss of pre-excitation. As suggested by the previous study, we started by mapping the SC region with a non-irrigated bidirectional catheter and a premask of 25 ms was found in the region of the median cardiac vein (VCM) (Figure 2, panel A). Radiofrequency (RF) was administered within this vessel (duration of 60 s, energy of 30 W and temperature of 55 ° C) with loss of pre-excitation after 5 seconds of application. Immediately after, the patient presented chest pain without hemodynamic instability. The electrocardiogram revealed non-pre-excited sinus rhythm and ST segment elevation of 1 mm in the inferior leads (Figure 3). Coronary angiography showed occlusion of the middle third of the posterior ventricular branch (PV) of the right coronary artery, with no signs of thrombus or dissection (Figure 4). Balloon angioplasty was performed, with immediate angiographic success and pre-excitation recurrence soon after. There was recurrence of severe chest pain 10 minutes after balloon, and there was reocclusion of PV. Aortic angioplasty was performed with a metal stent, followed by TIMI III distal flow. Retrograde aortic mapping was performed and a precocity of 20 ms was found in the PSE region (Figure 2, panel B); the RF was applied (duration of 60 s, energy of 30W and temperature of 55 ° C), followed by loss of pre-excitation after 1.5 seconds of application. The patient remained stable and asymptomatic for 3 days, without recurrence of pain and pre-excitation.

Discussion and Conclusion

Ablation within accessory pathways within SC is doable, but must be performed with care. Arterial and venous angiography is not routine in many services, but contraindicates ablation if the distance between vessels is less than 2 mm. When indicated, the RF should have low energy (20 to 30 W) and irrigated catheter if temperature or impedance limits its application. A R> S in V1 may be indicative of success by left endocardial technique

Fig 1.

Fig 2.

Fig 3.

Fig 4.