fistula to the coronary sinus is the direct run-off of cardioplegic solution to the right atrium; consequently the myocardium is not protected correctly. It is advisable to administer antegrade cardioplegia with digital compression of the fistula at the level of the coronary sinus [2, 3]. Retrograde cardioplegia represents a valuable alternative in the setting of a coronary artery fistula to the coronary sinus. Our technique would have been to administer antegrade cardioplegia with external compression of the coronary sinus then, after heart arrest, to perform a 2 cm longitudinal incision on the external aspect of the coronary sinus immediately prior to its distal extremity. This opening, which is obligatory to identify the entry point of the fistula, also allows us to introduce a retrograde cardioplegia cannula.

References


eComment: Cardioplegia in coronary artery fistula to coronary sinus

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We read with great interest the article by Mitropoulos and colleagues [1] concerning the successful surgical treatment of a giant right coronary artery fistula to coronary sinus. Fistulas between coronary arteries and coronary sinus are unusual. Volume overload due to the fistulous connection may cause a marked dilation of the coronary artery, which ultimately leads to aneurysm formation.

However, we would like to comment on an important point regarding the surgical management in the abovementioned case report. The authors did not describe the technique used for myocardial protection. One of the main drawbacks of antegrade cardioplegia in the presence of a large fistula to the coronary sinus is the direct run-off of cardioplegic solution to the right atrium; consequently the myocardium is not protected correctly. It is advisable to administer antegrade cardioplegia with digital compression of the fistula at the level of the coronary sinus [2, 3]. Retrograde cardioplegia represents a valuable alternative in the setting of a coronary artery fistula to the coronary sinus. Our technique would have been to administer antegrade cardioplegia with external compression of the coronary sinus then, after heart arrest, to perform a 2 cm longitudinal incision on the external aspect of the coronary sinus immediately prior to its distal extremity. This opening, which is obligatory to identify the entry point of the fistula, also allows us to introduce a retrograde cardioplegia cannula.