

CORRESPONDENCE

the catheter back into the right atrium is necessary for rapid placement of the catheter into proper position in the coronary sinus and should also minimize the possibility of the catheter tip contacting the wall of the right ventricle. Imaging with transesophageal echocardiography or fluoroscopy facilitates catheter placement.³ Familiarity with cardiac anatomy and physiology combined with appropriate interpretation of clinical data permit efficient and safe placement of this catheter, typically in approximately 5 min.⁴

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Reducing the Risk of Perforation of the Right Ventricle during Port-Access™ Minimally Invasive Cardiac Procedures

To the Editor:—We read with interest the case report of a perforation of the right ventricle with a coronary sinus catheter during preparation for a Port-Access™ minimally invasive cardiac surgery procedure.¹

It is important for anesthesiologists to be aware of this possibility during the insertion of any catheter within the heart, particularly during Port-Access™ procedures, in which multiple catheters and cannulae are used. However, we would like to clarify several terms used and techniques described in this case report.

The authors refer to a "pulmonary artery stent." Port-Access™ cases do not include the use of stents. Rather, the catheter placed in the pulmonary artery is a *vent* used to decompress the heart. At our institution, we have all but abandoned the use of the Heartport® Endopulmonary Vent™ catheter because with adequate venous drainage, it does not seem to be necessary. Furthermore, it precludes the use of a thermodilution pulmonary artery catheter, which can be valuable in the management of these cases.

We have also reduced significantly the use of the Heartport® Endocoronary Sinus™ catheter during mitral valve procedures because surgeons have developed a technique of placing a retrograde cardioplegia catheter from the surgical field, with the aid of transesophageal echocardiography (TEE). We have found this to be faster than the percutaneous transvenous approach and to reduce the need for fluoroscopy. It also possibly reduces the risk of perforation. During myocardial revascularization procedures, we have also reduced the use of the Heartport® Endocoronary Sinus™ catheter, except in those cases with concomitant aortic regurgitation.

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The authors placed the Heartport® Endopulmonary Vent™ catheter before the Heartport® Endocoronary Sinus™ catheter. We prefer to insert these catheters in the reverse order because coronary sinus catheterization and visualization with TEE and fluoroscopy may be easier when the right atrium is free of other catheters, avoiding multiple, possibly traumatic, attempts.

Finally, in the discussion of their case, the authors refer to "non-pump coronary revascularization." The Heartport® technique always uses extracorporeal circulation.

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