

References

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Reply to the Editor:

We appreciate the thoughtful comments of Corno and associates¹ about our recent study. The exciting results pointing out the advantages of the FloWatch-PAB^{2,3} forced us to use this device in the case presented. Because of the localization of the ventricular septal defect in the muscular septum, increased pulmonary artery pressure and the patient's young age made us optimistic that the adjustable FloWatch banding device would be the ideal solution for this patient. For this reason, we avoided a conventional banding as suspected by the authors, and even looking thoroughly at all available intraoperative images, we are not able to visualize surgical damaging of the pulmonary artery trunk before placement of the device. After removal, the device was carefully studied for any sharp edges that might have occurred during the manufacturing process and could have been responsible for the observed pseudoaneurysm formation, which could be ruled out.

However, the early detection of pericardial effusion and the loss of the banding effect suggest some damage to the integrity of the vessel wall while the aneurysm was detected on radiography only 7 weeks later. Therefore we are confident that the patient had a real complication rather than a coincidence. We agree that the physical prop-

erties of the FloWatch-PAB, especially the maintenance of the circumferential length of the pulmonary artery, should be helpful to prevent the complications of conventional banding procedures. Our personal experience in 2 other patients with multiple ventricular septal defects, in whom we removed the device 16 and 27 months after placement, respectively, support the usefulness of this new medical implant. Nevertheless, facing even rare complications, as we described, should contribute to increase patient safety.

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Evaluation of a modified ThermoWrap™ for the Allon™ warming system in patients undergoing elective off-pump coronary artery bypass grafting

To the Editor:

We have previously shown in this journal¹ that the Allon™ patient-warming system (Allon™ 2001 system; MTR Advanced Technologies Ltd, Or-Akiva Industrial Park, Israel) is efficient in maintaining normothermia during off-pump coronary artery bypass grafting (OPCABG), resulting in reduced perioperative blood loss and transfusion requirements. However, the ThermoWrap™ used with this system is expensive, complications (ie, burns) have been described,² and handling

can be time consuming. Meanwhile, we evaluated the new version of a ThermoWrap™ for the Allon™ system in terms of handling and efficacy. In contrast to the old version of the ThermoWrap™, the design of the new wrap has been modified to improve patient care and to reduce potential skin damage, as well as costs. With institutional approval and informed consent, 40 consecutive patients (mean age ± standard deviation [SD], 68 ± 10 years; mean body mass index ± SD, 28 ± 5 kg · m⁻²; mean Euroscore ± SD, 6 ± 3) undergoing elective OPCABG were randomly assigned to either the original (group A, n = 20) or the modified (group B, n = 20) ThermoWrap™. According to our previous temperature measurement study,¹ active warming was started after induction of anesthesia, with the Allon™ system set to 36.9°C body core temperature (BCT). BCT was recorded every 30 minutes during surgical intervention, and maximal intraoperative BCT decrease, as well as increase, was calculated. Skin alterations (reddening) were assessed by using a visual analog scale (score, 1-10) at the end of the procedure. During the clinical evaluation, 15 involved staff members completed a questionnaire on handling of the Allon™ system. The answers were recorded by using a Likert scale (score, 1-4). The Student *t* test was used for statistical analyses. Durations of OPCABG procedures were comparable (group A, 257 ± 59 minutes; group B, 269 ± 53 minutes; *P* = .89). There was no significant difference of BCT at the beginning and end of the intervention (Figure 1). Intraoperative BCT changes were significantly different for group A compared with group B (BCT decrease/increase: group A, -0.7°C ± 0.4°C/+1.2°C ± 0.3°C; group B, -0.4°C ± 0.3°C/+1.0°C ± 0.3°C; *P* < .05). Skin alterations were comparable for both groups (visual analog scale: group A, 6 ± 1; group B, 6 ± 1; *P* = .78). According to 80% of the interviewed staff members, positioning of the modified wrap B was superior and less time consuming compared with wrap A. On the basis of these results, patient management can be further improved by using the Allon™ system with the new modified ThermoWrap™.

This study was performed without any financial support from manufacturers or the pharmaceutical industries. The Allon™