

ICR 2005—Second Workshop on Integrated Coronary Revascularization

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In this special section of the Heart Surgery Forum, we present highlights from the 2nd ICR Workshop, which was held at Innsbruck Medical University on February 24 and 25, 2005. The aim of this meeting was to bring together interventional cardiologists, heart surgeons, and other cardiac specialists in order to discuss new ways of cooperation. A special goal was to theoretically and practically develop the logistics for combinations of minimally invasive surgical and catheter-based coronary interventions, so-called hybrid procedures.

Thanks to the generous support of the medical industry faculty and participants from all over the world attended the course. The number of participants increased as compared to the 2004 ICR workshop, probably demonstrating a rising interest in the hybrid concept.

During the first part of the meeting the value and the necessity of adequate interdisciplinary cooperation in various medical and non-medical fields was underlined in presentations by an astronaut trainer, by a university knowledge transfer manager, and by a gastroenterologist working in a center for abdominal disease. Representatives of medical industry elaborated on their view on integrated coronary revascularization. Several heart centers presented their current experience with hybrid procedures, and infrastructure issues as well as financial aspects of the hybrid concept were specially discussed. Latest minimally invasive surgical techniques including robotic totally endoscopic procedures as well as new techniques and technology in catheter-based intervention were shown. A special session concentrated on the value of the internal mammary artery, which can still be regarded as the best option for LAD revascularization. Vascular biology aspects of the IMA were also addressed. Cardiology colleagues elaborated on the success of drug-eluting stents, and the impact of these stents on hybrid coronary revascularization. In a "cases and experience" session, participants had the opportunity to show interesting cases being managed by an interdisciplinary team cooperation.

Talks and discussions demonstrated that integrated coronary revascularization is an intriguing concept. At present, however, very few cases of coronary artery disease are referred

for hybrid treatment and the worldwide experience is limited. The segment of CAD patients which is suitable for hybrid procedures still needs to be defined. Logistics remain a major point of discussion and limiting factor, but some aspects have been solved. Several heart centers are currently planning or constructing Cath-Lab operating rooms, which can also be used for integrated procedures in electrophysiology, endovascular treatment of aortic disease, for hybrid cases in congenital heart disease, and in the emerging field of percutaneous valve repair. There was consensus that creating a specialist who could cover all technical aspects of hybrid coronary revascularization is difficult (not to say impossible). A team of cardiologists, cardiac surgeons, and other cardiac specialists working in the Cath-Lab OR is probably the best approach.

Two live cases were demonstrated during the meeting. The first case was a simultaneous hybrid revascularization combining a MIDCAB procedure to the LAD with robotic endoscopic LIMA harvesting and drug-eluting stent placement to the right coronary artery in one single session. This intervention was carried out in the heart surgery operating theater using a mobile angiography C-arm. Cardiac surgeons and an interventional cardiologist collaborated in the same setting; angiographic graft patency and stenting result were perfect. Feasibility of such an approach without the logistics of a special Cath-Lab OR was demonstrated but discussion made clear that such a unit would be necessary if more complex cases were to be performed. The second case was a robotic totally endoscopic LIMA to LAD placement on the arrested heart using the daVinciTM telemanipulation system and the ESTECHTM remote access perfusion system. Routine handling of both telemanipulator and the complex perfusion system was shown in a smooth case, which was performed within an attractive timeframe. On-table angiographic examination of the graft again showed that bringing catheter-based techniques into the OR offers exciting perspectives for quality control and procedure development in minimally invasive and totally endoscopic CABG.

The vision of the ICR Workshop team is that in the future, cardiac surgeons, cardiologists, and other cardiac specialists will work together in specially designed units in order to provide optimal care for the patient with an ischemic heart. The 2005 ICR Workshop demonstrated that first steps into this direction have been taken, and that direct cooperation in the operating theater or in a Cath-Lab OR is both feasible and rewarding.

We thank all faculty members and participants for their valuable input, we thank EuroCongress for the perfect collaboration in preparing the meeting. The readiness of Innsbruck Medical University, the Departments of Cardiology

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and Cardiac Surgery, and the hospital administration TILAK to provide personnel and infrastructure for the organization of an academic workshop in a university hospital environ-

ment needs to be specially acknowledged. We hope to see you at the 3rd ICR Workshop. For further information visit www.icr-workshop.at.