EuroIntervention

Interventional cardiologists: a new breed?

Carlo Di Mario, MD, PHD, FRCP, FESC

President, EAPCI; Professor of Clinical Cardiology, Royal Brompton Hospital & Imperial College, London, United Kingdom

When you happen to be in London, I strongly invite you to pay a visit to the Royal College of Physicians, alongside Regent's Park, an unusual, but pleasant modern building filled with the glories, the precious books and the memorabilia accumulated in the five centuries passed after the College was created by Henry VIIIth in 1518 "to protect the rude and credulous populace" from charlatans. In one of the most glamorous halls of that building (Figure 1), in front of the portrait of Harvey, I received from Dame Carol Black, President at the time, the diploma of Fellow of the Royal College. In England this requires, for doctors trained outside

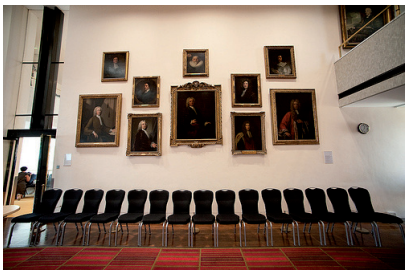

Figure 1. The old portraits of the College's Presidents in the new building of the Royal College of Physicians in London.

of the country, a short presentation by a Senior Fellow. Dr. Peter Mills gave a short, but brilliant, talk. At one point he mentioned the fact that somebody spending most of his time in greens in an operation theatre would probably be more suitable as a member of the Royal College of Surgeons. It was nothing more than a kind joke, but it made me think of the unusual position interventional cardiology occupies in the medical world, stemming from internal medicine and cardiology, but characterised by a heavy "operative" component shared by very few other medical groups.

What's the difference between physicians and surgeons?

In England the first are addressed as "Doctor", the others as "Mister", but they enjoy the same respect from the public and face the same problems with the increased bureaucratic burden placed on medicine. Of course, they also receive the same basic education, but it is fair to say that subsequently the attention during surgical training is more on technique and procedures, while for medical specialties it remains on diseases and the patient.

Chiron or the Minotaur

Interventional cardiologists are a new hybrid breed, like the tritons or centaurs of Greek mythology. We often consider "surgical" qualities the ability to have a prompt reaction towards emergency situations; to rapidly solve, rather than simply diagnose and palliate disease: we do it every day during primary angioplasty. Conversely, as medical interns, we make jokes about busy surgeons unable to meet their patients before or after treatment, operating for the sake of operating, with questionable indications and benefit, getting in trouble because they miss the global picture of the patient's concomitant illnesses.

Does it ring a bell?

These are the accusations interventional cardiologists often face nowadays. If we interventional cardiologists are hybrids, we must obtain the best of both worlds and not the worst of each: technical skills, but not carelessness; attention to clinical details while retaining focus and prompt reaction to the most urgent problems. We must maintain a sufficient knowledge and practice in general cardiology and medicine, finding enough time on the ward and outpatients' clinic to obtain the full picture of the patient's problems and expectations, as well, in addition, an idea of his psychology, that

** Corresponding author: Royal Brompton Hospital, Sydney Street, London, SW3 6NP, United Kingdom*
E-mail: C.DiMario@rbht.nhs.uk

always helps. At the same time, we must refine our technique to successfully cope with the increasingly more complex coronary pathology of an older population plagued by diabetes. I was so fortunate to work, amongst many others, with two giants of modern European interventional cardiology, Patrick Serruys and Antonio Colombo. They often perform live cases during courses. You will frequently see Antonio Colombo, busy in a rapid flawless dance of wires, balloons and stents on the table, until those skinny arteries you saw just before, magically transform into wide pipes of uniform calibre. Patrick Serruys will pay more attention, explaining each step of his strategy, supported by an extensive non-invasive and invasive imaging work-up. One embodies more the "surgical" soul of our profession, the other our "medical " soul...but, believe me, they both have plenty of clinical knowledge and technical expertise.

Raising a new breed

The process of training in interventional cardiology is far from being a coherent structured process in Europe, and one of the priorities of our Association is to improve this inadequate, patchy situation; defining clear standards of accreditation. If we do not define these rules now and apply them in the selection of future interventionalists – without waiting the years required to convince governments – the only parameters to judge adequacy of training become the number of PCI procedures and years spent in the cathlab. In practice, this encourages trainees in interventional cardiology to move to angioplasty before an adequate background in clinical cardiology is acquired, distracting them from paying due attention to patients before and after interventions and thus preventing them from learning from their previous mistakes. Economic pressure and short-sighted hospital administrations contribute to supporting this inadequate culture which transforms our cathlabs into stent-fitting factories, elevating numbers above quality. Interventional cardiology has reached a stage of development when we can have a truly collegial relation with cardiac surgeons, and my last editorial[1] was a pressing call to use our respective skills in the best interest of out patients, without weakening our credibility by fighting over patient ownership. Now, that we physically work together in hybrid rooms, it is fascinating to see the manual skills of a cardiovascular surgeon in action, allowing easy transthoracic insertion of large valve delivery catheters when the traditional percutaneous approaches fail. We should not, however, downplay those differences that are to our advantage. Our training requires a background in internal medicine and a basic practice in the main fields of cardiology. This allows a more holistic approach to our patients. We accept jokes about us as specialist plumbers of these important pipes, which are the coronaries. Fine, as long as they remain jokes. We must be in tune with mainstream cardiology to offer patients more than our dexterity during the angioplasty. This requires attention to the rapid progress of knowledge in all fields of cardiology, both in the training phase and continuous medical education as well.

EAPCI: proud to be part of ESC

Our Association is not, as our US counterpart, an independent entity separated from the general cardiology societies. We willingly chose to be - and remain – a branch of the European Society of Cardiology (ESC), which means full involvement in the many activities of the Society. Officers proposed by our Association spend time preparing the programme of the annual ESC congress together with experts in the other fields of Cardiology, creating trans-specialty sessions focused on diagnosis and treatment, rather than technique. The AHA and ACC complain of a progressive decrease in the number of interventionalists attending their annual sessions. We do not experience the same problem in Europe, with a record high number of delegates (31,347) at the ESC in Barcelona. If you want to understand the reason for this success, review briefly the highlights of this congress (http://www.escardio.org/ congresses/esc-2009/congress-reports/Pages/welcome.aspx?hit=HO). Ten sessions were coordinated by EAPCI. In one of them, entitled "Is it time to turn the page on Barcelona 2006?", Stefan James, newly appointed chair of the Registry and DB Committee of our Association, presented reassuring new data on the safety of drug eluting stents, gathered from more than 60,000 patients followed during six years in the SCAAR Registry. Another session reported the consensus reached on revascularisation treatment for diabetic and elderly patients in the many sessions devoted to these topics at EuroPCR 2009. Other practical "How-to-Do" sessions illustrated how to treat bifurcations and chronic occlusions, how to prevent PCI complications, how to use and interpret optical coherence tomography, intravascular ultrasound, pressure wire measurements. Many more sessions, with joint input from the Working Groups of Valve Disease, Nuclear Cardiology, Magnetic Resonance, Cardiovascular Surgery and the Associations of Echocardiography, Heart Failure, Prevention and Rehabilitation, defined current indications and results of transcatheter aortic valve implantation with updated indications to surgery and multivessel stenting. After the exciting two year data and subgroup analyses from SYNTAX, which was presented for the first time in Barcelona[2], the role of sophisticated imaging techniques to detect viability and ischaemia in candidates for revascularisation was discussed. I was privileged to chair one of the "Hot Trials" sessions, presenting results which are going to revolutionise our antiplatelet and anticoagulant treatment[3,4], confirming in STEMI patients the usefulness of primary PCI above 75 years[5] and the need of immediate transfer after thrombolysis even when large distances separate the hospitals of initial treatment and angioplasty centres[6]. This continuous stream of expertise and new knowledge from trial results is key to define and update the ESC Guidelines. They receive general acceptance because they do not express the biased viewpoint of a specialist group, but reflect the broad contribution of all the ESC components, with our Association regularly invited to participate in the development of these key documents. This "ecumenical " approach is best reflected in the various background of the panel members of the new Guidelines on Coronary Revascularisation, chaired by the former Presidents of our Association, William Wijns, as well as that of the European Society of Thoracic and Cardiovascular Surgery, Philippe Kohl. These Guidelines are due to replace the PCI Guidelines of 2005[7] and are expected to be released next year at the ESC Congress in Stockholm, Sweden (28 Aug-01 Sep 2010). One additional reason not to miss it!

References

1. Di Mario C. Informed consent in interventional cardiology *EuroIntervention* 2009;5:415-416.

2. Wallentin L, Becker RC, Budaj A, Cannon CP, Emanuelsson H, Held C, Horrow J, Husted S, James S, Katus H, Mahaffey KW, Scirica BM, Skene A, Steg PG, Storey RF, Harrington RA; PLATO Investigators, Freij A, Thorsén M for the PLATO Investigators. Ticagrelor versus clopidogrel in patients with acute coronary syndromes. *N Engl J Med* 2009;361. DOI: 10.1056/NEJMoa0904327.

3. Connolly SJ, Ezekowitz MD, Yusuf S, Eikelboom J, Oldgren J, Parekh A, Pogue J, Reilly PA, Themeles E, Varrone J, Wang S, Alings M, Xavier D, Zhu J, Diaz R, Lewis BS, Darius H, Diener HC, Joyner CD, Wallentin L. RE-LY Steering Committee and Investigators. Dabigatran versus Warfarin in Patients with Atrial Fibrillation. *N Engl J Med*. 2009.361:1139-51.

4. Kappetein AP, Holmes DR, Mohr FW et al. SYNTAX - Optimal revascularization strategy in patients with three-vessel disease and/or left main disease: The 2 year outcomes of the SYNTAX Trial. ESC Congress 2009. 29 August-2 September, Barcelona, Spain.

5. Bueno H., Alonso J. J., Betriu A. et al on behalf of the TRIANA investigators, Spanish Society of Cardiology, Madrid, Spain Primary angioplasty versus fibrinolysis in the very elderly. The TRIANA Study. ESC Congress 2009. 29 August-2 September, Barcelona, Spain.

6. Bøhmer E, Hoffmann P, Abdelnoor M, Arnesen H, Halvorsen S. Efficacy and Safety of Immediate Angioplasty Versus Ischemia-Guided Management After Thrombolysis in Acute Myocardial Infarction in Areas With Very Long Transfer Distances Results of the NORDISTEMI (NORwegian study on DIstrict treatment of ST-Elevation Myocardial Infarction). *J Am Coll Cardiol.* 2009 Sep 4. [Epub ahead of print]

7. Silber S, Albertsson P, Avilés FF, Camici PG, Colombo A, Hamm C, Jørgensen E, Marco J, Nordrehaug JE, Ruzyllo W, Urban P, Stone GW, Wijns W. Task Force for Percutaneous Coronary Interventions of the European Society of Cardiology. Guidelines for percutaneous coronary interventions. The Task Force for Percutaneous Coronary Interventions of the European Society of Cardiology. Eur Heart J. 2005 8:804-47.