The ongoing debate over the most appropriate way to extend primary percutaneous coronary intervention (PPCI) to the UK population was a key topic and provoked strong opinions amongst delegates and speakers alike. Andrew Bishop (Basingstoke Hospital, UK) opened the debate proposing that it was incumbent upon existing UK interventionalists to join 24/7 PPCI rotas as that was what best practice demanded. The problems of fitting this new commitment into existing schedules and European working time directive constraints was clearly evident. Nick Curzen (Southampton University Hospital, UK) illustrated the problems of potential duplication of PPCI services by considering his own region and the significant waste of resource and unrealistic rotas that would result. Shortage of specialist catheter laboratory staff was another concern as well as the observation that participating in a regional one-in-20 PPCI rota was more sustainable long term than individual unit’s attempting to operate one-in-five rotas locally. The suitability of offering a daytime PPCI service with out-of-hours cover provided by the regional unit remained an issue of contention. Tony Gershlick (Glenfield Hospital Leicester, UK) spoke last and focused on the best way to take forward PPCI in the UK, particularly in areas where travel times could be long.

Coronary intervention in the very elderly is not uncommon in UK practice and octo- or nona-generians may present for primary or elective PCI. Recent trials such as the Primary Angioplasty Versus Fibrinolysis in the Very Elderly (TRIANA) trial [1] have provided some additional insights but historically most patients over 75 years of age have been under-represented or excluded from major PCI trials. Rosie Swallow (Royal Bournemouth Hospital, UK) presented her institution’s experience of intervention in this age group. She characterized the Bournemouth elderly population as ‘wealthy and healthy’, with PCI in this age group having a low in-hospital mortality (0.8%), albeit higher than the under 75 year olds (0.3%). Interventional strategy was nevertheless different and characterized by reduced use of glycoprotein inhibitors, increased use of radial access, lower thresholds for rotablation and a tendency to treat the culprit lesion and avoid complete revascularization. Akhil Kapur (London Chest Hospital, UK) reviewed the data on left main stem intervention in the elderly. He concluded that despite limited evidence and higher complication rates (11.5% in the over 80s) left main coronary intervention in this age group was not uncommon but should always be considered on a case-by-case basis. Publication of the results of XIMA and other forthcoming trials may shed further light on optimum treatment strategies in this difficult age group.

Developments in cardiac imaging have now become a regular feature of interventional meetings. Dr Lucia Kroft (Leiden University Medical Centre, The Netherlands) provided an overview of the expanding indications for cardiac CT (CCT) and new data on its incremental prognostic value. The work by Schuijf et al. has shown that multislice computed tomography is an independent predictor of cardiac events and provides incremental prognostic value over single-photon emission computed tomography myocardial perfusion imaging [2]. The sensitivity and specificity with modern 64-slice scanners is
now approximately 98–99% and 89–91%, respectively, meaning that a normal CCT scan reliably predicts a very low risk of cardiac death (<1%). Although radiation dose remains an issue, new CT protocols in modern scanners are cutting the dose by between 50 and 60%. The other Achilles heel of CCT, significant calcification, looks likely to remain a problem for some time to come, complicating image interpretation and leading to false-positive studies. Research into adenosine stress CT continues, suggesting potential future functional applications of this technology. The range of appropriate indications for CCT appears to be widening with a survey by Carbonaro et al. concluding that when compared with the 2006 Appropriateness Criteria, opinion regarding clinical use of CCT had experienced a significant shift toward appropriateness across most indications, similarity judged among international cardiology and radiology experts in the field [3]. In particular, many experts now feel that acute chest pain with a low pretest probability for coronary artery disease, a normal ECG and normal cardiac biomarkers are appropriate indications for CCT. Russell Bull (Royal Bournemouth Hospital, UK) provided an overview of his local cardiac MRI service showing the increasing demand for adenosine stress perfusion cardiac MRI that has been noted across many UK centers.

Peter Ludman (Queen Elizabeth Hospital, Birmingham, UK) presented the results of the 2008 BCIS audit [101], providing an excellent overview of UK interventional practice. The number of PCI centers has risen to 105, and 80,331 procedures were performed equating to 1308 PCI per million population (pmp), but with significant UK regional variability. The rate of increase was the smallest observed in recent years. More PCI procedures are being performed, now representing 14% of all cases. PPCI is rapidly developing with an intervention rate of 150 pmp and over 50% of all UK centers now offer this service 24/7. The UK PPCI intervention rate remains significantly behind most European countries, but is nevertheless a current priority for development. Mean door-to-balloon time and call-to-balloon times were 54 and 116 min, respectively, with radial access not associated with additional delays. The popularity of radial access continues to rise and is now being used across all intervention types in over a third of cases with a lower complication rate than femoral access (0.76 vs 1.2%). A new development this year was an attempt to assess appropriateness of PCI, and within this limited analysis only 3.3% of PCI cases were deemed inappropriate.

A recent report by McKinsey and Company consultants and the Department of Health was discussed, which suggested that up to UK£15–20 billion will need to be saved over the coming years as a result of the global financial downturn. Some estimates suggest that as many as 10% of NHS jobs may be at risk and Peter O’Kane (Royal Bournemouth Hospital, UK) explained that within their hospital’s context a reduction of 25% in elective PCI was anticipated, with further reductions to follow. A number of reports have now been published by the King’s Fund, Institute of Fiscal studies and NHS confederation that support the notion that there will be a significant impact on NHS service provision over the next 5 years.

The role of the excimer laser (Spectranetics, CO, USA) in coronary interventions was reviewed in a panel discussion following a keynote speech by Antonis Pratsos (PA, USA) a recognised leader in the field. The principle of the excimer laser is that ultraviolet energy can photoablate arterial obstructions into small particles, most of which are smaller than a red blood cell and are absorbed into the bloodstream. The excimer laser showed promising results for cases of balloon failure, moderately calcified lesions, occluded saphenous vein grafts and visible thrombus. Nevertheless, the lack of randomized control trials and difficulties with heavy calcification will mean that adjunctive devices such as rotablation and thrombectomy catheters will likely remain the standard of care.

Stephen Preston (Royal Bournemouth Hospital, UK) provided an insight into the limitations of pathological analysis of coronary postmortem specimens within the UK. He commented that coronary stents were not always straightforward to find and their dissection could be problematic. He highlighted the lack of specialist
cardiac training in some centers at present, which could clearly affect the reliability of postmortem diagnoses.

Phil McCarthy (King’s College Hospital, UK) reviewed the resurgence of the role of aortic balloon valvuloplasty for severe aortic stenosis. Historically, a 10% mortality rate, high rate of recurrence and a failure to impact prognosis had meant that the procedure had fallen out of favor. Now, however, with improvements in balloon technology and the availability of definitive treatment with transcatheter aortic valve implantation, a number of new indications have emerged. In particular, balloon valvuloplasty could now be considered as a bridge to transcatheter aortic valve implantation or indeed as a therapeutic trial if it is unclear what the dominant pathology is.

Advanced Cardiovascular Intervention 2010, the main annual BCIS meeting, will take place at the London Hilton Metropole Hotel from Wednesday 27th to Friday 29th January 2010.

Bibliography

Website