Past President's musings

Robert N Anderson MD

One unique characteristic of all members of the Canadian Cardiovascular Society (CCS) Executives of the 1970s was that each shared the experience of having started their careers in Cardiology in the 'premodern era'. The 'modern era' was marked by a change in emphasis by adult cardiologists from congenital and valvular disease to coronary artery disease, a key date being 1961 when Mason Sones introduced coronary cineangiography, an innovation soon followed by coronary care units (Ken Brown, Bob MacMillan and others), and by the first coronary bypass procedure in 1967 (René Favaloro).

I will not try to review the details of these momentous times in the history of cardiology, but rather, I will make some observations from personal experience that may throw some light on how we acted as guardians of the CCS during our watch in the 1970s.

In a sense, the 'premodern era' of the 1950s was 'the best of times and the worst of times'. Led by Paul Wood, this was the golden age of clinical cardiology, when, for example, a glance across the room at a reclining cyanotic patient provided a diagnosis of Ebstein's disease by seeing a small dominant V wave in the jugular venous pressure, or the severity of aortic stenosis could be determined at the bedside with remarkable accuracy by evaluation of the pulse and the movement of the second sound. Even the degree of valve calcification could be estimated from the ejection click. But, once diagnosed, there was remarkably little that could be done about either condition, and when valve replacement became freely available, suddenly, the bedside assessment was not enough. On the other hand, some treatments were ineffective and archaic: rotating tourniquets for acute pulmonary edema, skin incisions in ankles in a bucket for peripheral edema, or three weeks in bed and little else for acute myocardial infarction. Indeed, it is only a slight exaggeration to say that, at that time, there were no truly effective treatments available for any cardiac problem.

In the transition period, in the late 1950s and early 1960s, cardiology was truly in a state of flux. Little attention had been paid to coronary artery disease, something considered 'beneath them' by the adult cardiologists of the day, jokingly referred to by Ken Brown (of coronary care unit fame) as 'endocardiologists'. Surgeons would quote mortality risk for valve replacement at, say, 11%, when it was several times this: it seemed that such rates were not calculated until there was at least one survivor of a particular operation. The barium-filled esophagus was routinely distorted when the long Bjork needle passed through it during left atrial puncture from the back. For the cardiologist, valve replacement was only to provide some relief from continuous discomfort, the mortality and morbidity being so high that a few had delusions that life expectancy would be improved.

While Sones coronary cineangiograms marked the beginning of modern cardiology, when first described, the technique was of little practical value. Brown and MacMillan's reason for gathering patients with acute myocardial infarction in one place for monitoring was to determine the terminal rhythm, rather than to improve management, although the latter was an almost immediate 'side benefit': within a few years, even relatively small hospitals

had active coronary care units. What changed everything, however, was Favaloro's aortocoronary bypass procedure; within a couple of years, it was *the* way to treat chronic symptomatic coronary artery disease. (There was soon a huge argument over its use for asymptomatic disease, which has an echo in the recent discussions regarding stents.) This decade also saw the development of many new ways by which technology aided in diagnosis and treatment. Although some new techniques were slow and tedious at first – working at Bethesda, Eldon Smith and colleagues could spend an entire afternoon with the new echocardiography apparatus and only glimpse at the anterior leaflet of the mitral valve – soon it was hard to keep up to the pace of change. The Bethesda Group of Eugene Braunwald saw the future in 'muscle mechanics' (one investigator defined congestive heart failure for me in terms of cat papillary muscle dysfunction!), but its $V_{\max}$ was quickly replaced by Dodge's ejection fraction. However, this institution soon left its distinct mark by supplying a large part of the leadership in cardiology divisions throughout the United States. Finally, there was one other remarkable innovation that set the stage for many future developments: Andreas Gruentzig's transluminal angioplasty.

This, then, was the turbulent world of cardiology the CCS had to live with, understand and interpret for its members in the 1970s. One can get an idea of how it did this by noting some of the topics of special sessions at annual CCS meetings of the time. Guest speakers spoke about transcatheter treatment of congenital heart disease; exercise, stress and coronary artery disease (a current perspective); preservation of myocardium during acute myocardial infarction; analysis and discussion of M-mode and two-dimensional echocardiograms (adult and pediatric); the assessment of platelet suppression therapy in ischemic disease; emergency cardiac care in evolution; and heart disease (a problem in aviation and highway safety?). Topics of symposia included cardiac arrhythmias and valvular heart disease.

Almost all the work related to the CCS itself was done by the one staff person – our executive secretary Dolores Lourenço. Primitive attempts were initiated to keep track of members, and their interests and subinterests; this was all done by hand, using filing cards. In 1980, for the first time, a national program committee and chair (Paul Armstrong) were appointed by the council; previously, this was a function of the local program committee. Much time and effort was spent in negotiations with The Royal College of Physicians and Surgeons of Canada over appropriate training requirements for residents in cardiology, but without much success. Earlier, an annual series of educational symposia, put on in conjunction with the Canadian Heart and Stroke Foundation representatives from all Canadian medical schools, helped to introduce modern concepts of curricular design and implementation to all Canadian divisions of cardiology.

The Society's Executive members of the 1970s were fortunate to have worked in a fascinating period of enormous change as the modern age of cardiology took shape. The CCS was much younger and much less sophisticated than it is today. Nevertheless, it played a varied and vital role in the professional life of most of Canada's cardiologists and cardiovascular surgeons of the era.

Correspondence: Dr Robert Anderson, 1641 Vernon Street, Halifax, Nova Scotia, B3H 3M9. Fax 902 446-5828, e-mail anmarbob@eastlink.ca
Received for publication May 2, 2007. Accepted May 13, 2007