

SCT Newsletter

Sept-Oct 2013



Welcome to October's newsletter,

We hope that you are all enjoying the lovely spring time weather and the extra hour of sunlight in the evenings.

Firstly, please note that the annual general meeting (AGM) is set for **Wednesday 30th October 2013 at 08:00**. We would like as many members as possible to attend, either in person or via conferencing. If you can dial in via video-conferencing, please let SCT know as soon as possible.

Attached to this email are the previous AGM minutes and audited books.

We have three well written and highly informative conference reports included in this months newsletter.

Firstly, we have a report by Rachel Stevenson of Dunedin hospital, Rachel recently attended the ASE Minneapolis meeting and provides us with intriguing insight into many technologies available in the US and abroad.

We also have two fellowship conference reports, by Maree McCormick, again from the Southern DHB, who provides a comprehensive overview of the Gold Coast CSANZ meeting.

Ellen Woodcock of Christchurch hospital attended the 'mini' CSANZ in Wellington, Ellen presented a poster of her recent project on the cardiac structure and it's influence on VF and gives us her account below.

Also included, a job advertisement from the Hutt Valley Hospital.

Conference report – Rachel Stevenson

American Society of Echocardiography Scientific Sessions – Minneapolis, USA Rachel Stevenson, Dunedin Hospital

Recently I was fortunate to be able to travel to the American Society of Echocardiography Scientific (ASE) Sessions 2013 in Minneapolis, USA. The meeting was attended by an international audience; with Europeans, Koreans, Japanese and the occasional Antipodean thrown into the mix with the many locals.

The theme of this years meeting was the rather long-winded title of “Disease based focus on the role of echo in diagnosis and guiding therapy”. There was a case-based format to many of the sessions followed by discussion from a panel resulting in some lively debate and opinions on both the imaging techniques and diagnosis. Sessions were tailored for range of professional and experience levels, with a number of “Imaging Essential” sessions, live case demonstration scanning and advanced sessions on peri-operative and interventional procedures and the role of ultrasound in these. As with all big meetings it was difficult to choose which sessions to attend. Many of the talks

emphasized the increasing importance and interaction of multi-modality imaging in diagnosing and treating cardiac disease, and emphasised the importance of team work between different disciplines and departments.

Highlights included the annual “Feigenbaum Lecture” this year presented by Dr P. Sengupta from Mount Sinai Medical Centre, NYC. The lectureship is awarded to a young researcher in recognition of their contribution to research, and honours Dr Harvey Feigenbaum, the “father” of echocardiography and founder of the ASE.

Dr Sengupta’s lecture was titled “Intelligent Platforms for Disease Assessment: Novel Approaches in Functional Echocardiography”. This event was a spectacle of the technological type, with the traditional PowerPoint slide show being replaced by a holographic presentation that filled a large portion of the stage. The graphics were superb and slightly memorizing, and included a beamed-up “Obi-Wan Kenobi” guest appearance from one of Dr Sengupta’s mentors, Dr Jim Seward who spoke of the future and role of the ASE with the need to embrace change in the field of computing within medicine.

Dr Sengupta spoke of the expanding role of technology and the rapid growth in this field. The change over a relatively short period of time has been phenomenal and is on an exponential curve. The power of the internet was proven in the REWARD study conducted last year in India, where ASE volunteers scanned 1023 patients over two days, with the images uploaded to 75 institutions around the world for reporting, and the results data being fed back within average of 12 hours. Other work is being done includes automation with robotic arms being used to take images and we were shown this in use between Boston and Munich. One way of dealing with staffing shortages!

The main challenge exists with the burgeoning amount of data that is generated for each patient as technology expands, and how we analyse and utilise this in functional echocardiography. Dr Sengupta is involved in researching tools and methods such as data matrix construction to use pattern recognition for disease states, and the use of ‘Google glasses’ in clinical practice. “The future is already here – it’s just not evenly distributed”.

The current and future effects of this technology on our role in ultrasound were extremely thought provoking. Dr Feigenbaum presented Dr Sengupta with a plaque and was somewhat lost for words at what we had just witnessed, but did offer commiserations for next years presenter in trying to better the presentation!

Another useful session I attended was a live scanning session on adult congenital heart disease patients with Transposition of the Great Arteries. These scans were performed by a sonographer with live commentary, and further commentary and advice by two paediatric cardiologists. It was helpful to hear scanning tips and diagnostic information pertinent to this group of patients. The realm of adult congenital heart disease is an ever expanding one, and the late complications are unknown in some disease states as these patients are now surviving longer than in previous decades due to advancements in medical treatment and surgical techniques.

The clinical cases competition was particularly interesting with some presentations of weird and wonderful cases. It revealed the lengths that can be gone to for one patient and the subsequent financial expenditure, with one panel judge suggesting the entire medical budget for that state may have been used up on one patient. This patient had a bioprosthetic MVR that had developed a large paravalvular leak which was closed percutaneously with a VSD septal occluder. She then returned within two weeks with further symptoms and had now developed valvular regurgitation probably due to damage of the bioprosthetic valve during the previous procedure. She subsequently had a Melody valve implanted in the mitral position to fix this and the LV apical and atrial septal punctures were then closed with occluder devices!

The other stand out session for me was “Athlete’s Heart: 360 Perspective”. This session included talks on the physiology of the heart and how the heart adapts to training; questions over whether the type of sport chosen by an athlete is in some way based on their underlying physiology and in fact it is not entirely the sport that causes the cardiac changes; and the role of endurance vs. high-intensity training and the effects on the heart.

A very interesting talk concluded the session with a personal perspective from the team physician to a high profile football and ice hockey team. This physician seemed to have a fairly pragmatic approach and weighed up the risks vs. benefits in a sensible manner with each individual athlete if a potential issue was found. This session highlighted the need to be aware of the patient and their story when

scanning eg: at rest a highly trained athlete with a bradycardic heart can appear similar to a heart with a dilated cardiomyopathy.

Finally, the social side of the conference was also important, with the main entertainment event being 'Echo Jeopardy' held one evening. I was glad I stayed for this after an 8 hour day of listening to lectures as it was a good laugh. The theme was 1970's and included 5-10 minutes of dancing to 'Saturday Night Fever'. The six contestants were dressed in appropriate costume, including Bonita Anderson from Queensland in a blue satin flared pants suit! There were some professional dancers to help out, but the amateurs did well and it got the quiz off to a good start.

The long trip to Minneapolis was well worth it, both for the warm summer temperatures during a cold Dunedin winter, and for the knowledge I consolidated on and gained from the conference. My thanks to the Southern District Health Board and my Cardiology colleagues for their support in helping me attend this meeting. Coming from a small hospital, in a small country, I feel it is important for echocardiographers to have exposure to big meetings in order to gain new skills, spread knowledge to our colleagues back home and also to run the checks and balances that we are performing our jobs to international standards. I was heartened by what I saw and learnt on my trip.

Fellowship Conference Report CSANZ 2013 - Maree McCormick

2013 ANZET/CSANZ Scientific Meetings

Gold Coast

SCT Scholarship recipient Maree McCormick

In early August I was fortunate enough to attend the Australasian ANZET and CSANZ Scientific Meetings in the Gold Coast. Both meetings were excellent for providing an update of new interventions, techniques and latest research.

The 2013 CSANZ meeting was originally scheduled to be held in Christchurch. As there was no venue suitable post earthquake, it was relocated to Gold Coast but still hosted by New Zealand. The CSANZ meeting was opened with a combined Aboriginal welcome, and Maori powhiri. This was an amazing joint cultural display, very unique, having never occurred before.

The ANZET meeting opened with a key note speech from Alec Vahanian, head of Cardiology at Bichat Hospital, Paris. He presented an overview of percutaneous mitral valve Interventions, especially the MitraClip System for treating mitral regurgitation.

Presentations on TAVI procedures outlined the success that is now seen with this procedure, with over 90,000 patients being treated since the first procedures done in 2004.

Bioresorbable Vascular Scaffolds (BVS) were presented as treatments options for younger patients, especially in the setting of acute MI, with the polylactide coating resorbing over two years by metabolising to water and carbon dioxide.

I was particularly interested in renal denervation presentations, with promising data being presented showing significant improvements in blood pressures. Dr Ian Meredith presented a very interesting paediatric renal denervation case. This was a ten year old boy suffering from polycystic kidney disease. He was on maximum medication taking 40 meds daily and missing a lot of school. After a

long process getting consent and a special paediatric sized catheter being made, the procedure went ahead. The boy now has a significant improvement in BP and is on much reduced medication, he's back attending school regularly and playing sport.

A main component to the two day ANZET programme was live cases streamed via satellite from Cath Labs in Auckland, Brisbane and Kuala Lumpur. These showed real time procedures of bifurcation stenting, deployment of Bioresorbable Vascular Scaffolds (BVS) including the use of Optical Coherence Tomography (OCT), a TAVI procedure, a MitraClip procedure, and renal denervation. The commentary from the operators gave the audience a good insight into the thought processes involved in decision making during a procedure and comments from the expert panel showed that even amongst experienced operators there are still differing opinions and approaches to treatment.

The main CSANZ programme was very comprehensive with multiple concurrent sessions across the spectrum of clinical cardiology and cardiac research making it very difficult to choose which sessions would be the best to attend. I particularly enjoyed the Kempson Maddox lecture by Peter Macdonald, outlining work being done to improve solutions and techniques for transporting donor hearts, allowing a larger pool of usable hearts, longer times to reimplantation and hearts arriving in better condition. Other very interesting and informative sessions covered the use of stem cells to regenerate infarcted myocardium, FFR use, the role of balloon pumping and also very good allied health presentations.

It was a great opportunity to attend these meetings, with the bonus of getting a few days of warm temperatures and sunshine in Queensland. I would like to thank SCT and the Southern DHB for supporting me in attending these meetings.

Fellowship Conference Report CSANZ 2013 – Ellen Woodcock

With the funding support I received from SCT I was able to attend the CSANZ conference. Most of the sessions I attended were arrhythmia focused but I also enjoyed several multidisciplinary ones, including the allied health and technology prize presentations where it was great to be able to support Jude Greenslade, who presented the Christchurch experience with the Riata defibrillator leads.

I found Trudie Lobban's talks inspirational! She founded both the arrhythmia alliance and the AF association which are both operating globally to raise the profile of arrhythmias within the community. They have run several very successful campaigns including 'Know Your Pulse'. She told a wonderful story of a primary school-aged girl who measured an irregular pulse in one of her parents, which resulted in the diagnosis of previously undetected AF. Pulse checks have been conducted in shopping malls and general hospital waiting areas also identifying many patients with undiagnosed AF. It is amazing that something so simple has potentially changed so many lives.

One of Trudie's talks was part of a session entitled 'From the patient to the laboratory; from the family to the community', which I found particularly

interesting. Arthur Wilde gave a description of genetic testing in patients with aborted sudden cardiac death. Diane Fatkin then gave an overview of genetic testing for arrhythmia syndromes from a laboratory perspective, followed by Jodie Ingles who discussed the issues involved with conveying genetic testing results to the patient and their family.

After the talks concluded on both Friday and Saturday I spent time standing next to my poster entitled 'VF frequency is influenced by cardiac structure'. We recorded standard 12 lead ECGs during ICD implant testing and compared the waveform characteristics during VF with the structure and function of the left ventricle (measured on a pre-implant MRI). We found that patients with ischaemic scar, reduced ejection fraction and dilated LV had significantly slower VF than those without these characteristics. I received some useful feedback on my work which I can incorporate into the formal write-up of this project. It was also a wonderful surprise to be awarded the Affiliates poster prize.

Ellen Woodcock, Christchurch Hospital

Advertisements:

Cardiac Physiologist, Echocardiographer

Hutt Valley DHB

A vacancy has become available within the Cardiology Service for a Cardiac Physiologist, Echocardiographer.

The primary role is to perform Echocardiograms, but you will also be required to carry out other non-invasive testing such as ECG, exercise stress test, Holter and event monitor fitting and analysis to meet the needs of both inpatient/outpatient services.

This is a permanent full or part time position.

We seek an applicant to join our friendly and experienced team who provide a quality patient focussed service to our community.

The successful applicant should be a flexible team player, with excellent customer skills, and have the ability to adapt to a changing environment. You will be provided with a comprehensive orientation programme. Professional development opportunities will be encouraged.

Applications at www.huttvalleydhb.org.nz job no. 2135-13

Closing 28/10/2013

The A. H. Couch Trust

The A. H. Couch Trust is a charitable trust set up by Arthur Couch in 1972.

It invites applications for financial support towards cardiology continuing education and research within the Auckland region.

Grants up to \$15,000 may be made on a case by case basis, subject to availability of funds and at the discretion of Trustees.

Typical grants have been towards small research projects or conference travel, and recipients have included junior doctors, cardiac MRTs, nurses, cardiac physiologists, sonographers and biostatisticians.

Applications may be made to applications@ahcouchtrust.org

SCT council members and contacts

- Chairperson - Fiona Riddell (Cardiac Physiologist – Auckland DHB).
And cardiac CPRB.
- Education Coordinators – Miriam Gideona (Cardiac Technician Middlemore DHB)
- Kara Edwards (Cardiac Physiologist – Auckland DHB).
- Treasurer - Renelle French (Cardiac Sonographer – Auckland DHB)
- Secretary – Catriona Pearson (Cardiac Physiologist – Auckland DHB)
- Newsletter editor - James Cadogan (Cardiac Sonographer – Auckland DHB)
- South Island members – Karen Harvey (Cardiac Physiologist - Christchurch DHB)

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If you wish to speak to an SCT Council member phone: +64 9 6309924

Contributions to the newsletter

All contributions are welcome.

This may be in the form of a case study from any discipline within the fields of cardio-respiratory. A detailed description and interpretation of your findings should be included.

Contact - Jcadogan@adhb.govt.nz

A case study written for the Newsletter earns 10 points towards your continued professional Development. Remember, case studies are to be made confidential.

Thank You