SCT Newsletter

August/September /October 2016

Hello and welcome to the SCT newsletter. Some varied and interesting content this issue with the minutes from our annual general meeting, a current vacancy and a conference report from the Cardiac Society meeting in Adelaide. I have also included a case study from a patient I scanned in April this year. It was such an unusual finding that it took the wind out of my sails to see Claire from Nelson present a similar case at the June CSANZ meeting with much better echo images than mine! As not every reader of this newsletter was there to see that talk I thought I would include it anyway.

CSANZ 2016 report by John Hunt – Cardiac physiologist from Taranaki base hospital

The 64th annual meeting of the Cardiac Society of Australia and New Zealand was held at the Adelaide convention centre from the 4th-7th August 2016 and was attended by over 1700 delegates. We were welcomed at the opening ceremony by a local aboriginal group who blessed the meeting and then the talks began. There were so many different topics which interested me so I tried to devise a plan to get the most out of the conference.

The first talk was from Dr John Webb from Vancouver, Canada. He explained about the TAVI procedure and how the procedure has now changed. 95% of the procedures are now done under local anaesthetic and the patient has an echocardiogram on the table after the procedure. They are discharged the next day with no routine echo follow up.

The next session I went to was in the multidisciplinary section of the conference. This had talks on various topics such as Dr Mark Haykowsky was reporting on two patients of his who have had heart transplants and they are performing ironman challenges (one had his heart transplant in 1986). There was also a talk on a cardiac rehabilitation scheme in Queensland that instead of patients going to the

hospital they had a “telerehab” video link and this meant more people attended the group. Another talk in this session showed how now that the consensus has changed from femoral to radial approach in the angio suite, that the scrub nurses are exposed to more radiation. This means that they are more susceptible to left sided brain/neck tumours and that they need to wear lead glasses as they are at higher risk of needing cataracts operations.

The next session was titled “Complex PCI” and the sessions explained around CTO (Chronic Total Occlusion) and how there was an 88% success rate and low complication rate of opening the vessels, which helped reduce symptoms and decreased the likelihood of depression in post-CABG patients. Dr Keith Oldroyd also explained how that if a patient had an occluded left main stem with no other disease then a PCI would be more beneficial than CABG and he showed graphs and tables illustrating this.

On Friday afternoon, I then went to the “Heart Failure/EP” session. This was very interesting and I learnt that ablating atrial fibrillation in patients with heart failure can considerably increase ejection fractions. It has an 84% success rate at 1 year follow up. There was then an interesting talk on ventricular ectopic ablation and heart failure. Studies show that if a person has a high PVC burden then if the ectopic is from a monomorphic focus and not suppressed by drugs that if ablated then this can increase an ejection fraction in a patient.

I went to several talks by a cardiac nurse called Jenny Tagney who was from the UK. She talked about end of life decision making for patients with an ICD and how there is a lack of public messaging around heart failure and a very poor prognosis. It was also discussed about how someone can have “do not resuscitate” on their medical records but still have their ICD switched on. Another talk she did was on “young people and ICD’s” which was very interesting and explained that communication was the key i.e. to make sure not only the patient but their family, teachers etc. are well educated around the device. There was also a section on body image and ICD’s especially how it affects young women.

“Assessing cardiovascular risk” was the next session and this was presented by several speakers including Rod Jackson from NZ and Kausik Ray from the UK. It was very interesting to hear Rod Jackson talking about how relative risk should have no clinical role and about how Framingham over predicts risk and to hear about his concept PREDICT. Kausik Ray was suggesting that if someone’s risk went from 2% at the age of 45 to 8% at the age of 50, with the patient having the same lifestyle and only a person’s age being the changing factor, then if we treated early then wouldn’t it reduce the risk? It was also discussed how patients don’t understand risk and showing them on a CVD calculator such as the JBS3 Guidelines maybe beneficial i.e. if they stopped smoking then they could reduce their “heart age” from 60 to 42 for example.

The session I was most excited about was “The Heart and the Brain”. Several speakers from the USA and Australia talked about how they link together. Brahmajee Nallamothu (USA) explained how being a “Type A” personality has a 2 fold increase of CHD. Rosama Tevella (AUS) explained how depression and stress has a role in CVD, with a 3 fold increase in mortality in a 5 year follow up, post ischaemia if a patient has high stress levels. David Hare (AUS) talked about the role of depression and how in the general population 6% of people are depressed and this increases to 15 % if you have had a heart attack and 25% a person has heart failure. He talked about how depression is not a risk factor but a risk marker. He also expressed that a study had shown that having a “happy childhood “correlates with less coronary heart disease when followed up 28 years later. It was also interesting to hear that the higher the NYHA class of a patient then the more likely they are to be depressed. NYHA I 11%, II 20%, III 38%, IV 42%.

So in summary the CSANZ conference was brilliant and it really opened up my eyes and mind to new and interesting developments in the world of cardiology and I would like to thank the SCT for funding my trip to Adelaide.

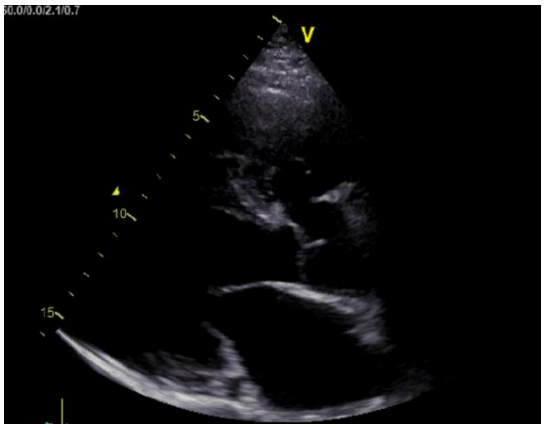
Zebra of the year

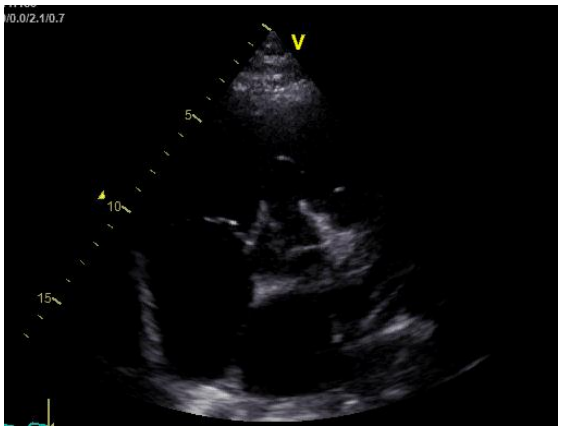
"When you hear hoofbeats, think of horses not zebras"

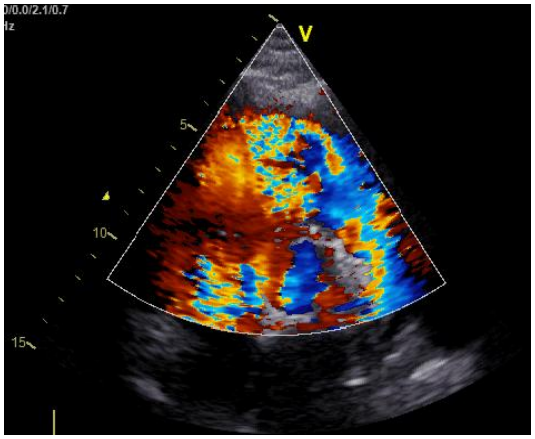
- Dr. Theodore Woodward

TT is a 26 year old male who presented to ED with shortness of breath and leg swelling. He was normally fit and well but over the last few months had some palpitations, occasional chest tightness and progressive shortness of breath. He had progressive peripheral oedema over the previous 10 days and had gained 10Kg over the last week. His blood pressure was noted to fluctuate from 175/72 to 137/61, heart rate was 110bpm and sats were 99%. JVP was elevated and a continual murmur was heard. The chest X-ray showed cardiomegaly and the Fast scan in ED showed no pericardial effusion, reasonable LV function and ?enlarged RV.

He was admitted and started on IV frusemide with plan for a cardiology review the next day. Formal echocardiogram was requested and he was scanned the same day that he was seen by the cardiologist. Given the continual murmur, the focus of the study was to look for a patent ductus arteriosus. As soon as I started the scan, it was apparent that I was dealing with something out of the ordinary.

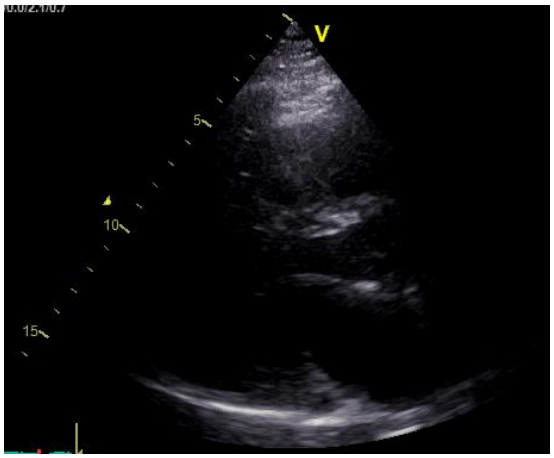


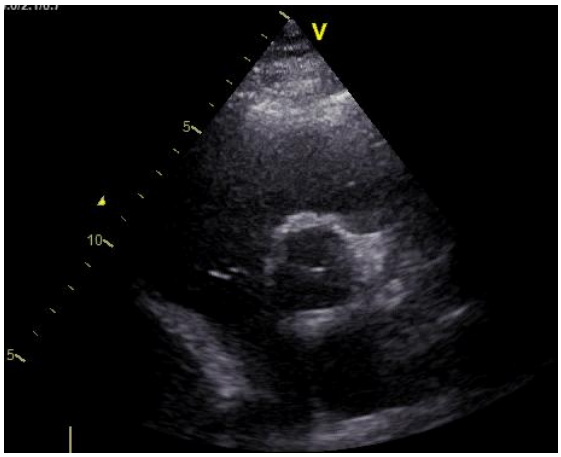




There was no PDA but there was a sinus of valsalva aneurysm that had ruptured with continual flow from the aorta to the right ventricle. The still images don't show the abnormality as well as the cine clips but the right ventricle, right ventricular outflow tract and Pulmonary artery were filled with turbulent blood flow. There was marked diastolic flow reversal at arch level and the right heart was moderately dilated with mildly impaired RV free wall contraction. The patient was accepted for urgent transfer by Wellington Hospital and three days after his initial presentation he underwent surgical repair. Surgery revealed a windsock shaped structure extending the whole length of the right coronary cusp that was nearly 2cm long that was seen to extend into the right ventricle below the right coronary ostium. The aneurysm was repaired using pledgeted sutures and a small patch of bovine pericardium. Intra-operative TOE showed no significant aortic regurgitation, tricuspid regurgitation and no membranous ventricular septal defect and after eleven days in Wellington hospital Mr TT was discharged home.

Sinus of Valsalva aneurysms can be acquired or congenital and are a consequence of weakness of the elastic lamina at the junction of the aortic media and the annulus fibrosis. The prevalence of SoV aneurysms is estimated at 0.09% of the general population, they usually affect the right coronary sinus and typically men are more affected. Ruptures typically occur between 20 and 40 years of age and the factors that determine clinical outcome are the speed at which the rupture occurs, size of the rupture and location. Ruptures which occur in the left coronary aspect are less clinically significant as the communication tends to be into the left atrium and left ventricular outflow tract as opposed to the right heart. Long term outcome after surgery is good with actual survival rates of close to 90% at 15 years. TT was seen in cardiology clinic two months later with vast symptomatic improvement and repeat echo showed a completely different picture





The right heart remained dilated with mildly impaired right ventricular free wall contraction so he will be reviewed in one year on clinic with repeat echocardiography but the patient had a good outcome from a potentially life threatening pathology. This case was a reminder to me that in the field of echocardiography a Zebra is never that far away.

Weinreich M, Pey-Yen Y, Trost B. Sinus of Valsalva aneurysms: Review of the literature and an update on management. Clin. Cardiol. 38,3,185-189

Current vacancy

Want to work in a challenging & dynamic environment?

Counties Manukau Health is a dynamic and progressive organisation at the forefront of innovative health delivery, serving New Zealand's most culturally diverse population. It is this diversity that offers unique opportunities for health professionals on both a personal and professional level.

The Cardiology Investigation Unit is looking for a full time Cardiac Sonographer to join our dynamic team of Cardiac Sonographers, Cardiac Physiologists and Cardiac Physiology Technicians. The successful applicant will be part of our Cardiac Sonography team involved in performing a variety of invasive and non-invasive procedures including adult and paediatric transthoracic echocardiography, transoesophageal echocardiography (TOE), exercise and dobutamine stress echocardiography and contrast echocardiography.

If you are a qualified Cardiac Sonographer who is currently registered/able to register with the Medical Radiation Technologist Board (MRTB) and has excellent communication skills then we want to hear from you.

Please apply online www.countieshealthjobs.com and further information please contact Sabrina Freitas at the recruitment centre on 09 276 0044, Ext: 8336

Applications close: 11th November 2016

Minutes of the Annual General Meeting

of

The Society of Cardiopulmonary Technology (NZ) Inc.

0800 21 September 2016

by Videoconference

Present:

Auckland City Hospital: Fiona Riddell, Christine Shanahan, Susan Sinclair, Belinda Jolly, Rachel Hoyles, Catherine Middlemiss, Belinda Bennett

Middlemore Hospital: Belinda Buckley, Celestina Chang, Miriama Gideona, Sonam Lal, Sophie Savage, Samuel Zander, Motufoua Motufoua

Waikato Hospital: Kellie Timmins, Laura O'Leary, Karl Coley

Tauranga Hospital: Michelle Bayles,

Apologies: Angela Morgan, Gay Noyer, Margaret Oldfield, Sonia Darlington, Halina Hinds, Elisa Thomas, Kara Edwards, Marina Fowler, Keri Maas, Lisa Cooper, Sadiqa Khan, Erin Hooper, Morag Madon, Jennifer Youard

Previous Minutes

These were not circulated prior to the meeting. The Secretary apologies.

Moved that they be accepted: Christine Shanahan

Seconded: Belinda Bennett

Chairperson's Report

Fiona Riddell, Chairperson, SCT

SCT Council/Working Groups 2015/2016

- **SCT Council**
  - Fiona Riddell, Chairperson (ACH)
  - Renelle French (ACH)
  - Miriama Gideon Education Committee representative & CPM Co-ordinator (MMH)
  - Gary Zealand, Newsletter Editor (HBY)
  - Gay Noyer, Website (ACH)
  - Belinda Bennett Secretary & Treasurer (ACH)
  - Karen Harvey, South Island Representative (CHC)
  - Vikki D'Ath, (WEL)
  - Megan Stevens (INV)

- **Education Committee:**
  - Chairperson Christine Shanahan, ACH

- **Professional Development Group:**
  - Chairperson Michelle Bayles, TGA

Work of the Council

- Monthly meetings via phone conference
- Discussing and processing membership applications
- Discussing and processing CPM/CCP applications
- Organising CSANZ meeting in conjunction with meeting organising committee
- Reviewing and setting policies
- Distributing fellowships
- Monthly newsletter
- Liaising with the SCT Education Committee & Professional Group and Clinical Physiologists Registration Board.

2015/16 Fellowship Recipients

CSANZ Rotorua ($1,000):

Samantha Bowman, Janine Pepper, Sheryl Tait & Michelle Bayles

CSANZ Adelaide ($2,000): Jon Hunt & Sharon Denekamp

CSANZ Meetings

- Rotorua CSANZ meeting June 2016
  - Successful SCT Symposium
  - Business meeting following

- CSANZ meeting in Hamilton 28-30th June 2016
  - Topic to be decided
  - Fellowship applications will be available for both NZ & Australian CSANZ meetings

SCT Achievements

- Continue to provide Certification for Cardiac Physiology Technicians and Cardiac Physiologists.
- Continue to adapt both certification courses to meet technology changes and as a result of feedback
- The Education Committee and the Professional Development Group are strong forums in which detail and policy can be discussed openly and honestly.
- Optional Masters pathway to be introduced 2018
- Evaluation of the Technician and Physiologist workforce is about to be undertaken (funding by CSANZ HRNZ)
- Constitution review undertaken with proposed changes passed at the Special General Meeting in June 2016.

Council

Resigned

- Renelle French
- Megan Stevens
- Belinda Bennett
- Miriama Gideona

Existing members

- Fiona Riddell ACH
- Gay Noyer ACH
- Karen Harvey ChCh
- Gary Zealand HBY
- Vikki D'Ath WEL

New members

- Krystle Melliza (ACH)
- Samantha Bowman (Wakefield)

Thank you to the old Council.
Thank you to the members of the Education Committee and the Professional Development Group.

Moved that this report be accepted: Christine Shanahan

Seconded: Michelle Bayles

Education Committee Report

Christine Shanahan

- Current committee members:
  - Christine Shanahan (Akld)
  - Angela Morgan (Wgtn)
  - Miriama Gideona (Middlemore, Akld)
  - Ellen Woodcock (ChCh)
  - Kannak Singh (Wgtn)
  - Vanessa Stuit (Waikato)
  - Graham Orsborn (Otago Uni representative)

  Two meetings held each year following exams

  - June 16th
  - November – scheduled for the 17th

Accreditation

- The Education Committee aims to undertake 3 site visits per. This ensures that all sites are maintaining appropriate training standards and practices. Each site should be visited and audited every 3-4 years.
- Site visits are undertaken by an Education Committee member from outside the region.
- Current cost for this is $600 (as determined by the SCT Council)

Current accredited sites:

- Auckland
- Middlemore
- North Shore
- Waikato
- Wellington
- Taranaki
- Tauranga
- Nelson
- Christchurch
- Dunedin
- Southland

Site visits performed in 2016:

- Auckland: 5/2016
- Wellington: 1/2016
- Christchurch: 5/2016
- Southland: 4/2016

Site Visits to be performed in 2016/7:

- Nelson
- Dunedin
- Waikato
- Middlemore

Exams

CPM

- 2 students enrolled in 2016 for full course
- One student unfortunately has required extended sick leave
- One student attended and passed the block weekend practical audit
- Exam scheduled for Nov 9th

CCP

- November 2015 = 3 scheduled to sit (1 deferred to 2016)
    - Includes the resit from June 2015
    - Due to a security breach by one of the students to the exam website, the exam was re-written and paperbased
    - 100% pass rate
- June 2016 = 4 students / 1 pass
    - Exam held online
    - Computer glitches identified and are being tested and eliminated prior to the next exam
- November 2016 = 8 scheduled to sit (includes 3 resits and 1 exam only)

- 2017 exams
    - 4 June
    - 6 November

New/Ongoing Developments

- A lot of site visits were undertaken this year to bring all centres in line with the accreditation plan
    - All centres should get a site visit every 3-5 years
    - Re-accreditation takes place every 2 years
    - Continuous work is being done with the online exams and processes to streamline this for the Education Committee. Thorough testing of the exams for issues such as computer crashing/hanging, poor image quality and image loading failures is in place
- Continual updating and reviewing of modules for both courses
- Two new members invited onto the Education Committee this year to provide representation from all regions

Moved that this report be accepted: Belinda Bennett
Seconded: Fiona Riddell

Professional Development Group Report

Michelle Bayles

- Apex working groups –Advance practice requires some work-financial implications evaluated by DHB's
- Salary review still in progress-Merit Progression proposed wording-similar to other Meca would work for us .
- Workforce planning group - discussion
- Affiliate steering group for HRS-working well
- Masters Discussion- PDG Nov 15 and April 16 also at CSANZ Rotorua at the SCT business meeting.
- Device based MSc at 2-3year post MTEX. Cost $6K per year min 4-6 students
- The positive feedback from Graham Orsborne the course is planned to go live 2018
- Summary of UK and NHS cardiac review regarding 2 pathways into the profession
- CCP Online Exam-Successful
- SCT certificate for all staff performing ECG's

- MTEX-Increased feedback from Otago required and align 703 &704 and two contact courses in 2016.
- CSANZ programme 2016 Rotorua –very poor representation from techs for the affiliates prize
- HRNZ business meeting sparked discussion about our workforce
- Team Leaders handbook Fiona Riddell
- Internship at Christchurch hospital

Moved that this report be accepted: Belinda Bennett

Seconded: Rachel Hoyles

Clinical Physiologists Registration Board

Belinda Buckley

Changes to the CPRB Board

- Angela Morgan resigned in February as the Cardiac member and Chairperson of the CPRB. I would like to take this opportunity to formally thank Angela for all her fantastic efforts for the Cardiac Physiology community over the years.
- Lisa Wilson has been elected by The Society of Cardiopulmonary Technology to be the replacement Cardiac Board member
- Angela Campbell was elected by the CPRB board to be the Chairperson in August 16, previously she has been acting in this role since February 2016
- The Registrar (previously called the administrator) will write to the SCT following every AGM advising of the board members remaining terms, so that they may begin the process of electing a replacement before the term is up.

Update on the CPRB registry

- There are 235 registered cardiac technicians/physiologists, 11 with conditions of echocardiography only
- There has been a big rise in the number of new registrants – an additional 47 in 2015 and 30 to date in 2016
- The on-line register is being re-organised to provide clearer info about individuals registration type, scope and conditions. Options which the individual can activate for display may include qualification, workplace and workplace history
- At the next APC round there will be a one off request for a photo to be displayed on the register

Update on PCA activities

- There have been four Practical Competency Assessments (PCA's) performed over last 12 months.
- There has been an ongoing national trend for increasing number of echocardiography only positions being filled with overseas applicants. The PCA has been a very successful option to register those entering the country with international echocardiography qualifications which cannot be assessed for equivalency to NZ accepted qualifications

- Due to the ongoing (and increasing) demand for PCA's it is necessary to change the fee structure. Previously this was expenses only and varied widely, this will soon change to a set fee due

Changes to the APC process for next year

- Over the next 6 months the board will be reviewing the APC process as part of a regular documentation review
- The required outcome of an APC process is to ensure practitioners are competent to practice. In the current process there is no supervisor signoff for ongoing competency (the supervisor signoff is for accuracy of information of work experience only). In 2017 this will change so that the supervisor must sign the applicant as competent and fit to practice
- Currently the APC is applied for each year with a point based system of activities. The evidence is only submitted if requested for audit. Although there is a guide to the activities and level of evidence required, in reality there are large differences in how this is interpreted at an individual and workplace level. This leads to difficulties in consistency for those authorising the APC
- Options being considered include 1. Minor changes to the current points based system; 2. Change to a combination of points and portfolio submission; 3. A portfolio only style submission
- A proposal of options will be presented to the SCT council for discussion in October/November

Moved that this report be accepted: Belinda Bennett

Seconded: Susan Sinclair

Treasurer's Report

Belinda Bennett

- Activity – business as usual
- Financials
  - Total worth at EOY is $128,089 compared with $128,345 for the previous year. This is a reduction of $256.
  - Income - $2,500 down on last year mainly due to reduction in course fee income with fewer students this year.
- Expenses – CSANZ Fellowships
    - $4,000 spent last year compared with $1,500 in previous year.
    - $500 each for New Zealand (4 given) and
    - $2,000 each for Australia (1 given).

Since these Fellowships were granted, the New Zealand amount has been increased to $1,000 per person.

Honoraria. $5,000 paid last year compared to $3,700 paid in the previous year. These payments are for marking of the CPM assignments. Amount paid is directly proportional to the number of CPM students. Marking also done for echo assignments as part of CCP.

PDG Meetings. $5,500 spent on travel and related costs to attend these meetings last year compared with $2,500 spent in the previous year.

Prizes and gifts. This relates to two years worth of thank-you gifts for council members valued at about $75 each. Gifts for the year before last were bought in the last financial year.

Moved that this report be accepted: Michelle Bayles

Seconded: Catherine Middlemiss

There was no General Business.

The meeting closed at 0855.