Researching to help many

After his work from the Eric Bishop Scholarship in 2009/10, Dr Johnny Wong is continuing his important research into spinal cysts with the Sir Roy McCAughey Surgical Research Fellowship for 2011.

While surgeons have known since the 19th century of the existence of a spinal cyst that can form following spinal cord injury, it wasn’t until the late 1980s that they had the chance to begin a close study of it.

Called syringomyelia, the cyst occurs in approximately 28 per cent of patients following spinal cord injury, often putting further pressure on the damaged cord which, in turn, can create further neurological deficits in patients who may already be partially paralysed.

However, there is limited understanding of the mechanisms of syrinx formation and enlargement.

Now the recipient of two College scholarships, Dr Johnny Wong, is conducting research to find the answer.

“No-one knows how they form, but we do know that a quarter of patients with spinal cord injuries go on to develop syringomyelia,” Dr Wong said.

“They represent a second spinal cord injury in a way, creating further problems such as pain, weakness and numbness. For people who may already be in a wheelchair who may then lose the use of their arms, the development of a syrinx is a very big deal.”

The current thinking is that the original spinal cord injury and scarring resulting from blood around the spinal cord create the environment, which in turn, promotes the cysts to develop.

Dr Wong’s current treatment involves dividing the scar tissue and freeing up the spinal cord or draining the cyst and inserting a shunt. However, this is very difficult surgery and often unsuccessful with the cyst recurring and fluid was only going in, the cysts would rapidly enlarge and eventually rupture, he said.

“We have found that fluid does flow out of the syrinx and it does so in a diffusion pattern into the spinal cord.”

Recently, they have been investigating the role of water channel proteins in syringomyelia on the basis that if we can change their function at the molecular level we could shrunk the cyst either by blocking off the flow into the cyst or promoting the outflow.”

Dr Wong has a SET 4 neurosurgical Trainee with the College and undertaking his research as part of a PhD under the supervision of Professor Marcus Stoodley, Professor of Neurosurgery at the Australian School of Advanced Medicine at Macquarie University in Sydney.

Given the nature of his research, he has divided his time between the university and the Institute of Medical and Veterinary Sciences in Adelaide where the sheep experiments are performed.

“Dr Wong said that even though a year-long research component is mandatory in neurosurgery training, he had chosen a longer-term project because it had the potential to vastly improve the lives of patients already suffering this severe injury.

“I have always been interested in research not only because I enjoy the intellectual pursuit, but also that when you operate on a patient you can benefit the individual, but if you make a major advance in research you can help many people,” he said.

The Eric Bishop Scholarship has been made possible due to a generous donation from the late Eric Bishop and is available to Fellows or Trainees wishing to take time away from clinical practice to concentrate on research. The Sir Roy McCAughey Surgical Research Fellowship is available to Fellows or Trainees wishing to conduct PhD research in Sydney.

Both scholarships carry a stipend of $60000.

“Whenever you operate on a patient you can benefit the individual, but if you make a major advance in research you can help many people.”

With Karen Murphy

NZ mortality review

Mid last year, New Zealand’s first national Perioperative Mortality Review Committee was established. Recent amendments to the New Zealand Public Health and Disability Act 2000 now place this committee within the newly established Health Quality and Safety Commission.

The Committee comprises a range of experts in the area of perioperative mortality review:

> Professor Iain Martin (Chair) Dean, Faculty of Medical and Health Sciences, University of Auckland
> Dr Leona Wilson (Deputy-Chair) Anaesthetist, CCDHB
> Dr Catherine (Cathy) Ferguson Otolaryngologist, CCCHB
> Dr Philip (Phil) Rider Clinical Epidemiologist, University of Otago
> Associate Professor Jonathan Kees Hepatobiliary and General Surgeon, ADHB
> Dr Digby Nigan Kee Obstetrician and Gynaecologist, MDHB
> Ms Rosaleen Robertson Chief Clinical, Safety and Quality Officer, Southern Cross Hospitals Ltd
> Mrs Teena Robinson Nurse Practitioner, Adult Prosthetics Care Centre, Southern Cross QE Hospitals
> Dr Tony Williams Intensive Care Medicine Specialist, CMIDHB

The inaugural report of the Committee is due for release in July of this year.

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