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Launceston General Hospital Memory Disorders Clinic

Associate Professor George Razay, MRCP, MD, FRACP, FANZSGM
Department of Medicine, Launceston General Hospital,
University of Tasmania

Background

As the Australian state with the oldest population, Tasmania has the highest incidence rate and thus prevalence burden of dementia, as a percentage of our population. Currently, over 6,000 Tasmanians have dementia and this is estimated to increase to over 25,000 by the year 2050.

With the recent advances in drug treatment for Alzheimer's disease, along with an increased understanding of the modifiable vascular risk factors underlying many dementias, the accurate and early diagnosis of dementia has become critical. Accurate diagnosis is also important because it can identify other causes of memory problems and dementia that are potentially treatable. For all of these reasons, the early and accurate diagnosis of dementia and other cognitive impairments and the development of effective treatment and management plans are imperative.

The Launceston Memory Disorders Clinic (LMDC)

The LMDC at Launceston General Hospital, was established in 1997 by Associate Professor George Razay, a General Physician and Geriatrician. It was the first memory disorders clinic in Tasmania. It provides comprehensive assessment, diagnosis and treatment of patients with mild cognitive impairment, Alzheimer's disease, normal pressure hydrocephalus and other related memory disorders. The majority of patients are referred by General Practitioners and Physicians. All patients undergo full medical assessment by Associate Professor George Razay. All patients have full investigations including brain imaging such as brain CT scan. Patients with probable diagnosis of normal pressure hydrocephalus (NPH) will be further investigated by MRI of the brain and cerebrospinal fluid study. The majority of patients will be given diagnosis and treated on the first visit, and will be followed up regularly.
Patients and carers are given full explanation of the cause of the memory disorder, a diagnosis, a treatment and referred to appropriate services.
The clinic has been conducting research on vascular risk factors and Alzheimer's disease, and diagnosing and treatment of NPH, a treatable form of dementia.
The clinic has been providing education not only to medical students, medical practitioners and other health professionals, but also to the community, through regular public lectures and media interviews (Newspapers, TVs and Radio)(see appendix 1. and copies of media articles). This has contributed greatly to raise the awareness of the community to memory problems and dementia and participating in research, and lead patients with memory disorders and carers seeking early assessment, diagnosis and treatment.

The Launceston research

One of the main aims of the clinic has been conducting clinical research which focused on the prevention of Alzheimer's disease and diagnosis and treatment of NPH. Our research has been funded mainly by Clifford Craig Medical Research Trust, a local charity organisation.

1- Alzheimer's Disease Risk Factors Study

Our research was the first to link Alzheimer's disease with the metabolic syndrome (Razay 2007), and with both obesity and underweight in the elderly (Razay 2006). Moreover, we have also shown that low and high blood pressure may contribute to cognitive decline in patients with AD (Razay 2009). We have also reported that a community-based exercise program help to improve cognitive and physical functioning in patients with AD, and this may be partly mediated by improvement in HDL cholesterol (Vreugdenhil 2011). These results suggest that vascular risk factors are associated with AD, and raise the hopes that AD can be prevented and treated.

2- The Normal Pressure Hydrocephalus Study

Our Clinic is unique in identifying NPH in the elderly, a treatable form of dementia that lead to decline in physical and cognitive function. The diagnosis is notoriously difficult to diagnose. Symptoms include walking problems, dementia and urinary incontinence in the presence of enlarged ventricles on brain imaging Treatment involves a simple operation to insert a shunt to drain away excess fluid from the brain. Despite the condition first being identified in the 1960s, there are still no clear diagnostic criteria and the condition is often missed, with patients often being misdiagnosed with other conditions such as Alzheimer's disease, Parkinson's disease or Lewy body dementia. The lack of diagnostic criteria has also meant that there have been no reliable estimates of the prevalence of NPH and has led to it being viewed as a rare condition.

Over the last decade, Assoc Prof George Razay has developed a model for the clinical diagnosis of NPH through his practice and research at the Launceston General Hospital (LGH) Memory Disorders Clinic: the *Launceston Model*. The diagnostic model is based on simple assessments that can be carried out in most urban and regional hospitals.

In the *Launceston Model,* the diagnosis of NPH is based on fulfilling 3 simple criteria:

1. Clinical presentation of: cognitive impairment (not necessarily dementia) and/or balance or gait disturbance.
2. Dilated ventricles on brain imaging (regardless of cerebral atrophy).
3. No evidence of an antecedent event such as head trauma or haemorrhage and no other medical conditions sufficient to explain the presenting symptoms.

In 2009, we published the results of a prospective controlled clinical study involving 32 consecutive patients diagnosed with NPH using the *Launceston Model* (Razay 2009). Their mean age was 77.2 years (range 58 to 92 years) and duration of symptoms was 4.6 years (3 months to 14 years). Thirty one patients (97%) had problems with balance and walking (63% requiring walking aid); 25 (78%) had dementia; and 17 (53%) had urinary disturbance (34% having urinary incontinence). The initial presenting symptoms were: dementia (7 patients, 22%); balance and gait disorder (7, 22%); or both (18, 56%).

At 3-4 month follow-up, for the shunted group, the majority of patients showed moderate or marked improvement on global, balance and urinary functioning. In contrast, in the control non-shunted group, the majority showed moderate or marked worsening.

Patients who were shunted, at follow-up compared with baseline, had an increased median MMSE score by 4.5 points (P=0.003) and were faster on Timed Up and Go by 4 seconds (P=0.01) and the 10 Metre Walk by 3.2 seconds (P=0.02). Moreover, the number of shunted patients requiring walking aides declined by 33% (P=0.03) and there was complete resolution of urinary incontinence and nocturnal frequency. In contrast, patients who were not shunted had decreased median MMSE score by 7 points (P=0.007) and were slower on the Timed Up and Go test by 12.9 seconds (P=0.05).

This study suggests that ventriculo-peritoneal shunting improves cognitive, balance and gait, and urinary functioning in patients with NPH. This study is unique in investigating the impact of shunting using primary and secondary efficacy measures in a controlled trial. Patients who were shunted became more independent, with more than a third of them no longer requiring walking aides and total resolution of urinary incontinence and nocturnal frequency. In contrast, patients who were not shunted became more disabled mentally and physically.

Studies on the incidence and prevalence of NPH are few and suggest that NPH is a rare cause of dementia. Recent meta-analysis of 37 studies reported that NPH accounts for 1 to 1.6% of dementia patients (Clarfield 2003)) and a recent study in Rochester, USA (with a population of 70,745) found no cases of NPH among dementia patients in 4 years (Knopman 2006) In our study, in a similar size population to Rochester, we found 33 cases of NPH in 4 years, suggesting that NPH may be more common than previously thought.

The prevalence of NPH Study

Since 2010, with funding from Clifford Craig Medical Research Trust (CCMRT), we have been looking at prevalence of NPH among elderly patients with memory problems from Northern Tasmania.

Our initial finding has been presented at the International Conference on Alzheimer's Disease and Related Disorders (ICAD), Paris, July 2011.

There were 162 patients, mean age 76 years (range 32-95). 80 (49%) had mild memory impairment (MCI), and 82 (51%) had dementia. 39 patients had Alzheimer's disease (24% of all participants, 48% of dementia patients). 31 (19%) patients had NPH, of whom 17 (21%) had dementia, 11 (13%) had mixed dementia, 5 (6%) had vascular dementia. 38 (48%) of the MCI patients had anxiety and depression. (see enclosed poster.

Summary

It is imperative to raise the awareness of Australians, as we have been doing in Tasmania, to the importance of diagnosis and treatment of memory disorders and dementia, especially treatable causes such as normal pressure hydrocephalus, through public presentations, and local media (newspapers, radio and TV). This is best achieved by establishing a memory disorders clinic and dedicated staff. This will raise hopes among patients and their carers, and encourage them to seek early assessment and treatment.

According to our research, the estimated prevalence of normal pressure hydrocephalus may be up to 20% of cases with dementia. In 2011 there are an estimated 280,000 Australians with dementia. Therefore, up to 56,000 people with dementia in Australia may have normal pressure hydrocephalus and are currently missing out on being correctly diagnosed and treated. Identifying and treating these patients could lead to improved quality of life for many patients who would otherwise be condemned to progressive dementia and disability and lead to reduced physical and emotional carer burden and reduced costs to the community associated with ongoing support and residential care.

References

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- Razay G, Williams J, King E, Smith AD, Wilcock G. Blood pressure, dementia and Alzheimer's disease: the OPTIMA longitudinal study. Dement Geriatr Cogn Disord, 2009; 28: 70-74.

- Vreugdenhil A, Cannell J A, Razay G. A community –based exercise program to improve multi-domain function in people with Alzheimer's disease. 2012;26:12-19.

- Razay G, Vreugdenhil A, Liddell J. A prospective study of ventriculo-peritoneal shunting for idiopathic normal pressure hydrocephalus J Clin Neurosci 2009;16:1180-83.

- Clarfield AM. The decreasing prevalence of reversible dementias: an updated meta-analysis. Arch Intern Med 2003; 163(18):2219-29.

- Knopman DS, Petersen RC, Cha RH, Edland SD, Rocca WA. Incidence and causes of nondegenerative nonvascular dementia: a population-based study. Arch Neurol 2006; 63(2):218-21.

Appendix 1.

Invited Public Lectures 2009/2010

1. Independent Retirees Association, 21 August 2009.
2. Family Based Care/ Alzheimer Association, 26 August 2009.
3. The Hobart Continuing Medical Education Symposium, 24 October 2009.
4. Clifford Craig Medical Research Trust Professional Breakfast, 1 October 2009
5. John Morris Society, 17 November 2009.
6. Northern Council Auxiliaries, 27 April 2009.
7. Longford Medical Practice, 10 May 2010.
8. Prospect Medical Centre, 20 May 2010.
9. Newstead Medical Practice, 3 June 2010.
10. Launceston Legacy, 6 July2010.
11. Medical Students (Clinical Schools) 10 August 2010.
12. St Johns Church (Older Boulders) 17 August 2010.
13. Northern Suburbs Medical Centre, 18 August 2010.
14. Southern Health Region Council of Auxiliaries, 22 September 2010.
15. Royal Australian Guide Dogs Association, 18 October 2010.
16. 15th National Conference of Independent Retirees, 10 November 2010.
17. Family Based Care, 13 November 2010.

Media coverage, TV, Radio and Newspapers Interviews

TV

1- ABC TV: Main News 1997.
Risk Factors of Alzheimer's Disease.

2- Southern Cross TV: Main News; Tasmania in Focus 1999.
Normal Pressure Hydrocephalus.

3- Channel 9 TV: Main News 2002
Normal Pressure Hydrocephalus including interviews with 2 patients following treatments.

4- ABC TV: Main News June, 2003.
Vascular Risk Factors of Alzheimer's Disease.

5- ABC TV: Main News October, 2003.
Shunting for dementia.

6- Southern Cross: Main News November, 2003.
Smoking, alcohol consumption & Alzheimer's disease.

7- ABC TV: Main News, 17th September 2005.
Midlife obesity and Alzheimer's disease.

8- ABC and Southern Cross TV: Main News, 28 May 2009.
Shunting for normal pressure hydrocephalus.

9- ABC and Southern Cross TV: Main News, 7 September 2009.
A prospective study of Normal pressure hydrocephalus.

Radio Interviews

1- Risk Factors of Alzheimer's Disease.
- ABC Radio: Main News. 19 Jun 2002
- ABC Radio Northern Tasmania, Launceston.
- Capital Radio, Canberra.

2- Shunting for dementia.
- ABC Radio: October 2003.

3- Smoking, alcohol consumption & Alzheimer's disease.
- ABC Radio: November 2003.

4- Shunting for normal pressure hydrocephalus.
- ABC radio: Main News 29 May 2009.

5- A prospective study of Normal pressure hydrocephalus.
- ABC radio National and Northern Tasmania 4 September 2009.

Press

1- The Examiner 22.6.1998
‘Pattern seen in dementia study’.
2- The Examiner 12.8.1999
‘Dementia subject of a lecture’.
3- The Saturday Examiner 4.8.2001
‘Healthy seniors wanted for big project’.
4- The Sunday Examiner, 21.4.2002
‘Dementia: New hope’.
5- The Examiner Extra 28.5.2002
‘Research helps beat old age’.
6- The Examiner 12.8.2002
‘30 volunteers are needed’.
7- The Examiner 26.6.2003
‘Keep exercising, study advises’.
8- The Mercury 14.11.2003
‘Tipple a day may be the Alzheimer’s clue’.
9- The Advocate 14.11.2003
‘Alzheimer’s link: smoking 12 cigarettes a day double risk:study’
10- The Examiner 14.11.2003
‘Daily drink can be best tonic’.
11- The Examiner 16.11.2003
‘Alzheimer’s special: research provides best hope’.
12- The Examiner 30.4.2004
‘Acute Stroke Unit at Launceston General Hospital’.
13- Unitas July 2008-11-18
‘Link between mind and body’.
14- The Mercury 29.5.2009
‘Tassie dementia breakthrough’.
15- The Examiner 30.5.2009
‘Community asked to dig deep for treatable dementia’.
16- The Examiner 27.6.2010
‘Unlocking hidden brain problem’.
17. The Sunday Examiner 18 April 2010
“Research assists dementia sufferers”
18. The Sunday Examiner 27 June 2010
“Research has world impact”
19 Mercury 28 August 2010
“Medical marvels put Tassie on the map”

Some examples of media coverage are attached.

ABC Online

Brain fluid draining eases dementia: research. 11/10/2006. ABC News Online

[This is the print version of story http://www.abc.net.au/news/newsitems/200610/s1760531.htm]

Last Update: Wednesday, October 11, 2006. 11:33am (AEST)

A new technique in which fluid is drained from the brain offers hope for dementia patients. (ABC TV)

Brain fluid draining eases dementia: research

Researchers at the Launceston General Hospital in Tasmania have made a breakthrough in the treatment of dementia.

Results of a recent study indicate one form of dementia could be effectively treated by draining excess fluid from the brain.

The study investigated 20 patients diagnosed with a condition which leads to progressive deterioration in mental functioning, a loss of balance and incontinence.

The director of the hospital's Dementia Research Centre, Dr George Razay, says for the majority of patients, the surgery was a success.

"The results have revealed a significant improvement in their physical and mental function in that 71 per cent of our patients improved in memory and mental function and 94 per cent improved in balance and walking," he said.

Dementia `breakthrough'

By DANIELLE BLEWETT , Thursday, 12 October 2006

Launceston General Hospital researchers have developed a breakthrough treatment for dementia.

Yesterday the director of the LGH Dementia Research Centre George Razay said the treatment for one form of dementia was simply draining fluid from the brain.

More than 5000 Tasmanians live with dementia and the number is expected to treble by 2050.

Dr Razay's study looked at 20 patients from the hospital's Memory Disorders Clinic who were diagnosed with a condition called normal pressure hydrocephalus.

"This results from a build- up of fluid in the ventricles in the brain, causing them to enlarge. This condition leads to progressive deterioration in mental functioning, eventually resulting in full dementia," Dr Razay said.

He said patients with the condition could benefit from a small operation in which a fine tube, or shunt, is inserted into the brain to remove the excess fluid.

The condition can also cause loss of balance and incontinence.

"At present we do not know exactly how many people are affected," he said.

The study involved the assessment of patients - 10 men and 10 women aged 58 to 92 years - with normal pressure hydrocephalus.

"Most patients had memory problems or dementia, and the majority also used some sort of walking aide," Dr Razay said.

"We found that post surgery an overwhelming 94 per cent of patients showed overall improvement.

"Some 71 per cent improved in memory and cognitive functioning; 94 per cent had better balance and were able to walk more easily, and 73 per cent had improved urinary functioning.

"Our research has indicated that normal pressure hydrocephalus may be more common than first thought and that shunting can be effective in improving the mental and physical functions of patients with the condition," Dr Razay said.

THE VOICE OF TASMANIA
MERCURY
mercury
THURSDAY, OCTOBER 12, 2006

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DEMENTIA CURE: Researcher George Razay

GILL VOWLES

A TASMANIAN researcher has found a simple surgical method for reversing one form of dementia, with patients calling him "the miracle man".

Dr George Razay, director of the Launceston General Hospital's Dementia Research Centre, believes the treatment will be effective for five to 10 per cent of Tasmania's 5000 dementia patients.

"One of the causes of dementia is a condition called normal pressure hydrocephalus, which creates a fluid build-up in the brain," Dr Razay said.

"This can be treated by a small operation to insert a fine shunt into the brain to remove the excess fluid."

Dr Razay said a recent study with 20 patients from the LGH's Memory Disorders Clinic had shown a 71 per cent improvement in memory and cognitive functioning and a 94 per cent improvement in balance and walking after the surgery.

None of the 20 patients had been able to walk unaided before the operation.

"We found that post-surgery an overwhelming 94 per cent of patients showed overall improvement," Dr Razay said.

He said two of the study patients — a 71-year-old woman and 83-year-old man — had been on waiting lists for nursing homes before surgery.

"The 71-year-old lady, who had been terrified of walking and was totally dependant on her husband, was living at home without support and walking independently two months after her surgery," Dr Razay said.

"The 83-year-old man, who

Continued Page 2

From Page 1

was unable to stand or walk, was walking with a frame just three weeks after the operation."

Dr Razay said two other patients had gone from being dependant on carers to playing bowls and doing tai chi.

"A Hobart neurosurgeon has performed 37 operations so far — 20 patients from the study and 17 others — and we now expect to perform about 12 operations a year," he said.

"That's 12 patients who will not be going into nursing homes."

Dr Razay said his research findings were an important breakthrough because the number of Tasmanians living with dementia was increasing.

Dr Razay's Shunting for Dementia Study was funded by Tasmania's Clifford Craig Medical Research Trust.

Trust executive officer Phil Baker said dementia patients were calling Dr Razay "the miracle man".

"The value of our research work is evident when you hear a husband thanking Dr Razay for giving him his wife back," Mr Baker said.

'People want a healthy, active life . . . we can help'

Link found between fat and dementia

A Launceston specialist has made a breakthrough connection in his research into Alzheimer's disease. ALISON ANDREWS reports.

Launceston dementia specialist and researcher George Razay has identified a link between Alzheimer's disease and obesity.

The Launceston General Hospital Dementia Research Unit director says that the results of the study offer new hope for preventing one of the most common causes of dementia.

"We all know that being overweight increases the risk of common conditions such as heart disease, hypertension and diabetes," Dr Razay said.

"But our study indicates that it is also a factor in the development of Alzheimer's disease."

Dr Razay's research programme was a joint effort between staff from the LGH and UK researchers.

They found that being obese — with a body mass index of more than 30 — increased the risk of Alzheimer's disease almost tenfold.

BMI is a measure of obesity and is calculated by dividing a person's weight in kilograms by their height in metres squared.

A person of 20 to 25 falls within the health range, Dr Razay said.

"We also found that people with the highest amount of fat in their belly — those with waist-hip circumference of more than 0.9 in men and 0.8 in women — were twice as likely to develop Alzheimer's disease when compared with people with the least abdominal fat," he said.

Dr Razay's study was carried out in collaboration with Frenchay Hospital and the University of Bristol in England, and was published recently in the Dementia And Geriatric Cognitive Disorders journal.

A group of 50 patients with Alzheimer's disease were recruited to the study from memory disorder clinics in Launceston and Bristol and, at the same time, 75 healthy elderly people were recruited from patients' spouses and the local communities.

WORLDWIDE RESEARCH: Launceston dementia specialist George Razay. Picture: PAUL SCAMBLER

"The study showed that obesity was more common among patients with Alzheimer's disease, with 22 per cent of patients being obese compared with only 5 per cent of the healthy control group," Dr Razay said.

The latest report from Alzheimer's Australia estimates that there are 200,000 people with dementia nationally — about 5000 in Tasmania.

But Dr Razay said that the prognosis was far more positive than when he arrived in Tasmania 10 years ago.

He believes that in another decade, the incidence of dementia among the elderly will drop significantly because of early diagnosis.

"People's attitudes have changed so that they want to seek help for dementia, they want to know about it, they want a healthy life and an active life and, in many cases, we can help, particularly in the early stages," he said.

THE SUNDAY EXAMINER
APRIL 21, 2002 Price $1.40 inc. GST.

HERO HORSES
THE MAGAZINE

GALLIPOLI DIARY
PAGE 8

COTTAGE REVIVAL
THE MAGAZINE

TASSIE DOCTOR'S WORLD FIRST

Dementia: New hope

'YOU'RE A MIRACLE MAN, DOC'

FOUR years ago, Claire Shegog was heading for a life of complete dependence.

Her short-term memory was shot to pieces, she could walk only with a frame, she needed help dressing and bathing, and her husband Claude had to do all the thinking for her.

But Mrs Shegog is now walking by herself, dressing herself, finding and putting on her own jewellery, even cooking now and then. She has even taken up lawn bowls again.

And it's all because of ground-breaking research by Tasmanian doctor George Razay, who has been labelled a "miracle man" by Mr Shegog.

Dr Razay has developed a successful early diagnosis and treatment programme for what is known as normal-pressure hydrocephalus.

Normal-pressure hydrocephalus occurs when fluid surrounding the brain stops draining away and causes pressure on the brain.

Symptoms include memory loss, loss of balance and walking difficulties, dementia and incontinence.

But Dr Razay, conducting research funded by the Clifford Craig Medical Research Trust, is using a 20-minute neurosurgical procedure with amazing results.

SEE ROHAN WADE'S REPORT — PAGES 4-5

Back on her feet: Claire Shegog with Dr George Razay and her husband Claude. Four years ago she couldn't walk unaided, now she has thrown her walking frame away. Picture: Neil Richardson

DEMENTIA: A NEW HOPE

Immediate results a blessing

CASE STUDY ONE

LESS than two years ago, the only way Roger Phillips could move around was with a walking stick.

His balance had deteriorated so much that he needed an ambulance three times in just one week because he kept falling over and hurting himself.

Now Mr Phillips can walk unaided. He has even taken up the Chinese practice of tai chi, which concentrates on developing balance and control.

The dramatic change is attributed to Dr George Razay's world-leading research on diagnosing and treating a condition usually dismissed as merely symptomatic of "getting old".

Mr Phillips, 76, suffered eight years' gradual deterioration of his balance along with increasing urges to urinate which saw him wake as many as five times a night.

He became so unsteady on his feet that a walking stick was necessary, but he still suffered nasty falls.

Dr Razay did a brain scan and a dye test which showed that the fluid around Mr Phillips's brain was not draining as well as it should.

The diagnosis, coupled with a simple neurosurgical procedure to drain the excess fluid, has had a dramatic impact on Mr Phillips's life.

The first time he got out of bed after the operation he did not need his walking stick. And he hasn't used it since.

Mr Phillips said the procedure had given him an improved quality of life, allowing him to walk without help and taking away the constant fear of falling.

His wife Joyce said the turnaround in her husband was "wonderful".

"We just thought it was because of old age, and there was nothing that could be done. Now he's able to do these things that he just couldn't do," he said.

Mr Phillips said he was now maintaining an active lifestyle.

Wonderful: Watched by George Razay, Roger and Joyce Phillips are more than pleased with the new treatment.

Improved way of life now a reality for Claire

CASE STUDY TWO

CLAUDE Shegog looked fondly at his wife, then at Dr George Razay.

"You're a miracle man, doc," he said with quiet sincerity.

Although Dr Razay dismissed the compliment, it was easy to see the reason for Claude's admiration.

His wife Claire is now walking by herself, dressing herself, finding and putting on her own jewellery, even cooking now and then. She has even taken up lawn bowls again with her beloved Mowbray Bowling Club.

Yet just four years ago, Mrs Shegog was heading only for a life of complete dependence.

Her short-term memory was shot to pieces, she could walk only with a frame, she needed help dressing and bathing, and Mr Shegog had to do all the thinking for her.

"Her improvement is out of sight. Before she couldn't cook because she couldn't remember what to do or the recipes. Now, someone shows up and she goes out and cooks up a batch of scones without any help at all," he said.

Mrs Shegog said her deteriorating balance and memory over the years caused her immense frustration, and culminated with her having to give up bowls.

"I'd been a member at Mowbray since 1977 and I just didn't have the balance to play any more. It was hard to come to terms with," she said.

But Mrs Shegog, 72, is back bowling again, playing last season in division four.

Dr Razay said by diagnosing and treating normal pressure hydrocephalus early, older people could have a much higher quality of life for longer.

"People have these memory or waterwork problems or balance troubles and they say 'oh, I am getting old', but maybe this can be treated," he said.

He said some sufferers could expect only to be placed in full-time care or in nursing homes if the condition was not diagnosed and allowed to progress.

"How many other people out there aren't having the quality of life that perhaps they could?" he said.

"There are not many places in the world doing this work, but it is very important," he said.

Probe into US train crash

CRESCENT CITY, Florida — Investigators combed through a jumble of overturned train carriages yesterday in north-east Florida searching for clues in a train derailment that killed four people and injured 159 others.

Bulldozers were moved to the scene near Crescent City to right damaged carriages and investigators from the National Transportation Safety Board snapped pictures as they began the painstaking process of trying to find out what caused the Amtrak Auto Train, with 452 people on board, to jump the tracks.

The train carried 34 crew and 418 passengers, many of them senior citizens.

School forced to shut its doors

BRISBANE — The educational future of more than 200 students and 60 staff is in the balance after a Brisbane private school shut its doors permanently.

The Kooralbyn International School, near Beaudesert south of Brisbane, was closed without warning by administrators Ernst and Young Friday night, leaving some parents more than $25,000 out of pocket from up-front fees.

According to Channel Nine news, the administrators advised the school, which was once home to Cathy Freeman and golfer Adam Scott, to shut up shop after it became clear it could not find a way clear of a $3.3 million black hole created by smaller than expected enrolments.

Richmond wins award

ONE of Tasmania's most popular tourist attractions, Richmond won the national historic preservation award at the 2002 Tidy Towns awards presentation in Hobart last night.

National judge Dick Olesinski said Richmond was renowned for its quaint, village atmosphere and strong community spirit.

He congratulated the Clarence City Council and Richmond Advisory Committee on their work in maintaining a unique historic village.

More than 1700 towns entered this year's awards.

Soldiers Point, Salamander Bay, NSW, was named the Tidiest Town for 2002.

RSL plans to allow kids

SYDNEY — In a bid to modernise Anzac Day, the RSL has revealed plans to allow children to march in Sydney's CBD regardless of whether they are descendents of Australian veterans.

Currently only descendents of deceased military veterans can march if they have their relative's medals and have obtained permission from the unit or division they served in, The Sunday Telegraph reported yesterday.

But RSL national president Maj.-Gen. Peter Phillips has revealed the new plans to allow more young people to become involved in the event.

DEMENTIA: A NEW HOPE

Relief for some ills of 'ageing'

Launceston is the site of pioneering work that could help many old people. ROHAN WADE reports.

A LAUNCESTON geriatrician is offering hope to countless numbers of elderly people who face spending the rest of their lives in nursing homes or under constant care.

George Razay's ground-breaking work is curing people of what is often dismissed merely as a symptom of ageing, giving his patients a renewed quality of life in their twilight years.

Dr Razay has developed a successful early-diagnosis and treatment programme for what is known as normal-pressure hydrocephalus.

The condition occurs when fluid around the brain stops draining away and causes pressure on the brain.

Symptoms include memory loss, loss of balance and walking difficulties, dementia and incontinence — all commonly associated with ageing.

Dr Razay, in a project funded by the Clifford Craig Medical Research Trust, has made massive steps in diagnosing and treating the condition very early to limit its impact.

Already, several patients in his care have demonstrated dramatic improvements, going from being unable to walk unaided to resuming everyday activities without help.

The treatment consists of a 20-minute neurosurgical procedure, conducted in Hobart, where a shunt is inserted into a hole drilled through the patient's skull and connected to a tube hidden beneath the skin draining the excess fluid into the stomach.

With the pressure relieved, patients experience improved balance, better memory and fewer incontinence problems in just a matter of weeks after surgery.

Dr Razay said successful diagnosis and treatment of normal-pressure hydrocephalus was overcoming a condition often overlooked as being a part of growing old.

"People get unsteady on their feet, they lose their memory, they have trouble with their waterworks, and they are told it's just because they are old. But maybe that is not why," he said.

He said the difficulty was in separating out normal-pressure hydrocephalus as a condition in its own right, and seeing it in isolation from ageing.

Dr Razay said that although the condition was well known there had been little research into it, and until now it had usually been diagnosed late, when the symptoms were advanced.

"If you wait until a person is demented to diagnose it, then it is perhaps too late," he said.

By conducting a series of brain scans and cognitive tests, Dr Razay can diagnose the condition or tell whether the symptoms are an underlying element of such diseases as Alzheimer's, which will not respond to the treatment.

He said he did not yet know what percentage of patients would either be suited to or respond to the surgery, but was aiming to see 50 patients in the next five years to further research.

"We want to let people know that perhaps what they are suffering is treatable, and let doct this condition is not getting old," he said.

He has made a sub Clifford Craig Medi Trust for more funding work on normal-pre cephalus. Members of invited to make donatio to enable the work to

Big steps: Dr George Razay takes notes as he listens to a pa the benefits of the new treatment. **Pictures: Neil Richa**

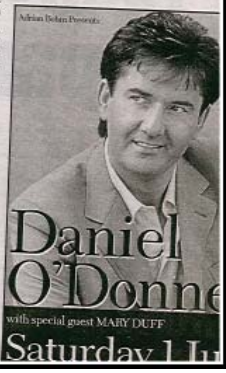
Tougher dogs laws for SA

ADELAIDE — The South Australian Government has indicated that it will toughen dog laws to curb the number of dog attacks in the state.

Environment Minister John Hill said that tougher laws were needed to protect people from dog attacks.

Department of Human Services figures showed that about 6500 people a year required medical treatment after being attacked by a dog in metropolitan Adelaide.

This represented 125 dog attacks each week, he said.



The First in Tasmania EXAMINER

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Monday, October 16, 2006 Price $1.10

HARD ROAD: Part of the record field stretches out in yesterday's Burnie Ten.
INSET: Launceston's Kim Gillard is all smiles after his third place in the elite men's section.

Tassie two in the placings in record Burnie Ten

A record field of 3677 took part in yesterday's 22nd Skilled Burnie Ten, again proving the appeal of Australia's premier 10km road race.

Twenty-one-year old Ballarat runner Collis Birmingham took out his first Burnie Ten, winning the men's elite race in a time of 29min. 20sec.

He beat home Queenslander Michael Shelley (29.22) in a sprint to the line with Tasmania's Kim Gillard putting in an outstanding run for third place in 29.26.

Victorian Anna Thompson finally managed her first win in the women's elite division after having finished second at three previous attempts.

She led all the way to win in a time of 33.58 from NSW's Lisa Corrigan (34.36) with Tasmania's Commonwealth Games steeplechase bronze medallist Donna McFarlane finishing third in 35.21.

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Our accidental miracle

A chance observation by a Launceston researcher has led to a medical breakthrough for dementia patients.

Dr George Razay made the startling discovery while treating a 71-year-old Launceston woman who had a severe form of the disease.

DEMENTIA BREAKTHROUGH: PAGE 4

Two decades ago Tasmania was a parasite when it came to medical research. Now it is a world leader, particularly in Alzheimer's and cardiovascular disease, as GILL VOWLES reports

Medical marvels put Tassie on the map

GEORGE Razay's patients call him "the miracle man". And it's little wonder when the Launceston geriatrician is doing what was previously thought impossible — curing people of one type of Alzheimer's disease.

Professor Razay, director of the Launceston General Hospital's Dementia Research Centre, has discovered a simple surgical method for reversing normal pressure hydrocephalus (NPH), a treatable form of dementia that had previously been difficult to diagnose.

NPH creates a fluid build up in the brain and Razay has found it can be removed with a small operation to insert a fine shunt into the brain.

So far 30 patients, who had been unable to walk unaided, have undergone the procedure — with startling results.

"Post-surgery 94 per cent of patients showed overall improvement," Razay said. "They showed a 71 per cent improvement in memory and cognitive functioning and a 94 per cent improvement in balance and walking after the surgery."

He said two of the patients, a 71-year-old lady and an 88-year-old man, had been waiting to enter nursing homes before their surgery.

"Two months after the surgery the lady was living at home without support, walking independently and whipping up batches of scones for visitors," Razay said.

"The male patient was walking without a frame just three weeks after the operation."

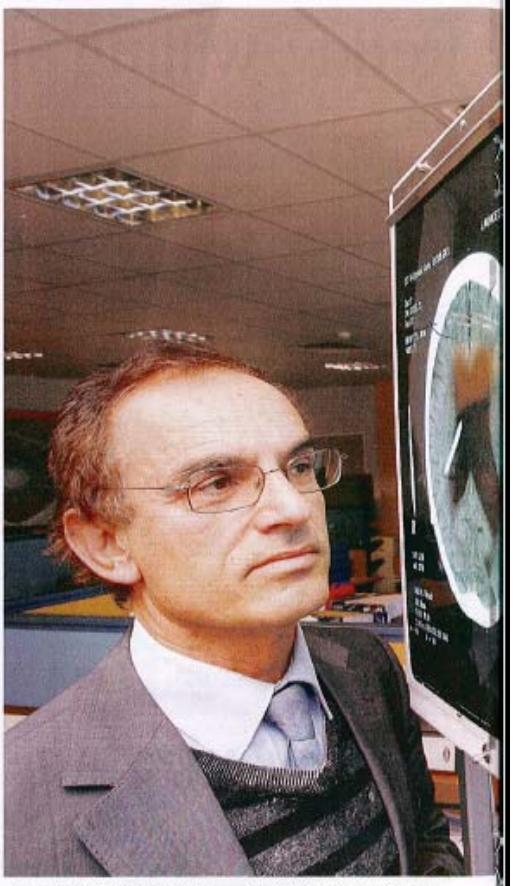
Razay has seen other patients go from being totally dependent on carers to playing bowls and doing tai chi.

"This surgery can make huge differences to people's quality of life," he said.

Razay's work has been published in the *Journal of Clinical Neuroscience* and he has presented it at several international conferences.

Another of his findings, which is also gaining international attention, is the frequency of the condition.

CUTTING EDGE: Some of the equipment in the pathology lab at the Launceston General Hospital.



"It was previously thought NPH was a rare disease affecting only about 1 per cent of dementia sufferers, but we now believe it accounts for about 10 per cent of cases," Razay said.

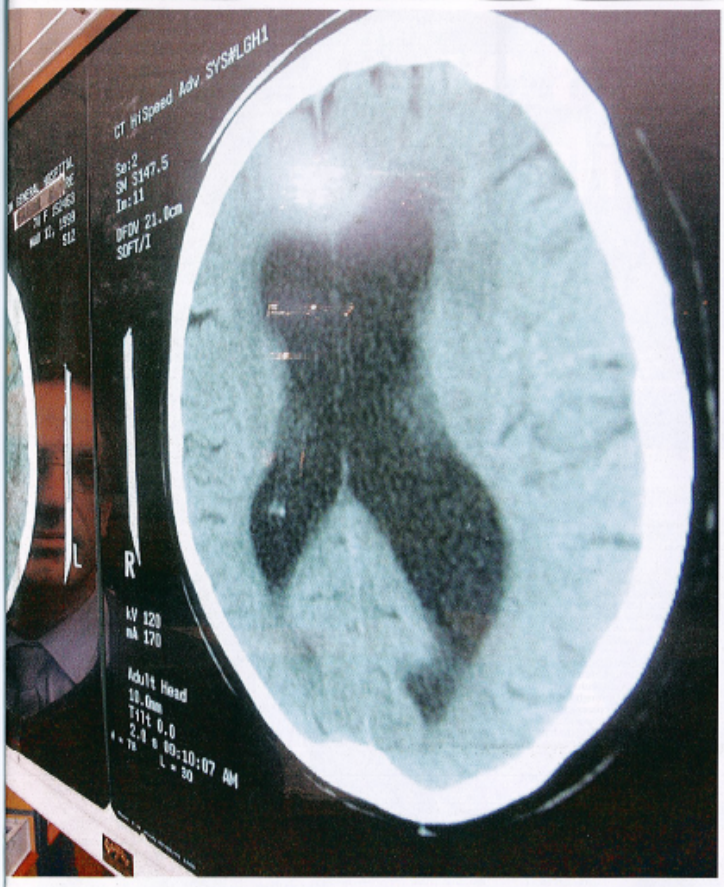
That means up to 20,000 of Australia's 200,000 people diagnosed with dementia — or 600 Tasmanians — could have NPH and benefit from the simple surgical treatment.

Razay is now developing a simple model to diagnose NPH.

"In the past NPH has been difficult to diagnose and has often been discovered too late for treatment. We want to change that," he said.

Razay's next three-year study of 400 Alzheimer's patients has been funded to the tune of $333,000 by the Launceston-based Clifford Craig Medical Research Trust.

And he is not the only trust-funded researcher who is gaining international attention and saving lives.



MAN OF MIRACLES: Professor George Razay, director of the Launceston General Hospital's Dementia Research Centre, studies a brain scan of a dementia patient. Prof Razay's groundbreaking work is gaining a great deal of international attention. **Pictures: ROSS MARSDEN**

Cardiologist Professor Don McTaggart's research into hypertrophic cardiomyopathy — a potentially lethal heart condition that is the biggest cause of sudden death in young people — has been picked up for an extensive research project at Boston's Brigham and Women's Hospital and Children's Hospital.

McTaggart's research discovered a simple drug treatment for preventing the disease, which affects one in 500 people.

"We sometimes read about a young person dying on the football field or in a fun run and wonder how such a fit young person could have died in such circumstances," he said.

"Usually it is because they had hypertrophic cardiomyopathy — an inherited condition which often doesn't appear until people are in their teens."

McTaggart's groundbreaking study discovered that the heart actually starts to function abnormally before the condition develops.

"It is the initial abnormal heart function, where the chambers of the heart don't relax properly, causing them to thicken, that leads to the development of the disease," he said.

McTaggart's trial suggested a drug used for controlling high blood pressure and angina, Diltiazem, could reverse the heart abnormality and prevent the development of hypertrophic cardiomyopathy.

The founding chairman of the Clifford Craig Medical Research Trust, Dr John Morris, said the trust was delighted when international researchers picked up and further developed Launceston research projects.

"We see that as a big part of our role," Morris said.

"Because we are a small research facility, we can fund studies here that would be too small to rate anywhere else.

"We have the unique ability to conduct small pilot studies, and if the work shows promise the larger studies can be done by centres with more funding."

That also happened with a glaucoma inheritance study conducted during the 1980s by Associate Professor David Mackey.

"Prof Mackey's glaucoma study was one of the best ever done in the world and it has totally redefined the criteria for diagnosis around the world," Morris said.

Clifford Craig Medical Research Trust chief executive Peter Milne said medical research was like a giant jigsaw puzzle.

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"Because we are a small research facility, we can fund studies here that would be too small to rate anywhere else"

INITIATIVE: Dr John Morris, founding chairman of the Clifford Craig Medical Research Trust.