Briz Brain&Spine
NEUROSURGERY & SPINAL SURGERY

'Outstanding care through compassion and innovation'

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Grey Matters newsletter

DECEMBER 2009

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UPDATE

With new premises at the Wesley Hospital, an additional neurosurgeon and a full schedule, 2009 has been a very busy year for BrizBrain & Spine. We are looking forward to another big year ahead and have been planning some exciting new initiatives for the business.

Our clinic at Holy Spirit Northside has recently been reopened after a refurbishment, and the current fit-out at our St Andrew's clinic is due for completion in early 2010.

One of our most exciting projects for the New Year is Fortus Health, the physiotherapy company that we are launching in early 2010. This unique venture combines the collective experience and intelligence of the BrizBrain & Spine neurosurgeons, with the skilled expertise of our physiotherapists, to determine the best possible treatment and rehabilitation programmes for our patients.

These interesting new developments have been created with our patients in mind. The staff at BrizBrain & Spine are enthusiastic about the year ahead and are looking forward to implementing further changes and initiatives to continue to provide outstanding care through compassion and innovation.

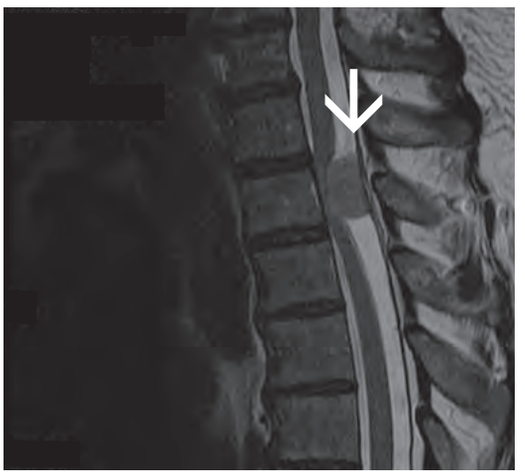
We would like to wish everyone a happy and safe Christmas and New Year and we look forward to working with you in 2010!

SPINAL MENINGIOMA

A 60-year-old truck driver presented with progressive paraparesis. He described over two years of progressive symptoms with increasing numbness from the nipples down. He also described burning dysaesthesia and increasing difficulty walking. He described more recent onset of bladder incontinence as well as constipation, and was unable to obtain or maintain an erection.

On examination he demonstrated increased tone with hyperreflexia and spasticity, as well as a sensory level from the nipple down.

An MRI scan of the spine demonstrated a high thoracic tumour consistent with a meningioma, causing significant compression of the spinal cord.



He proceeded to surgery where he underwent a thoracic laminectomy and removal of a tumour that was confirmed as meningioma.

He has made a progressive recovery with a gradual return of his previously lost neurological function.

HISTORY OF PITUITARY SURGERY

Surgical treatment of pituitary tumours has been around for 100 years. Not surprisingly, things have changed. Initially a nasal approach via the sphenoid sinus was used, which was widely adopted by the father of modern neurosurgery, Harvey Cushing (Boston).

Pictured is Cushing operating with the latest technology of the time – a light bulb attached to his head!

Cushing later abandoned the transnasal, transphenoidal route citing a lack of exposure and visibility. He used a transcranial approach to treat pituitary tumours, and this was largely the approach adopted by surgeons for the next 60 years or so.

With the development of the operating microscope and use of intraoperative x-ray to guide the approach to the pituitary fossa, the transnasal, transphenoidal route was taken up again and gained widespread appeal. This is the approach used today for almost all pituitary tumours.

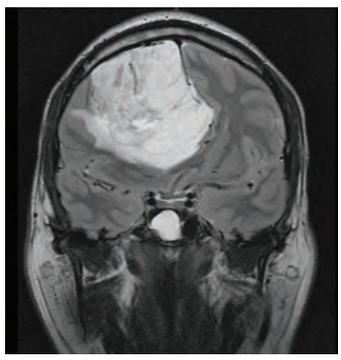
In recent years, technology has made pituitary surgery safer and more effective. Pituitary surgery has evolved from the days of Cushing with the use of stereotactic guidance, modern microscopes and instruments including endoscopes, and in some centres, intraoperative MRI scans.

ANAPLASTIC MIXED GLIOMA

The patient in the images below is a 35-year-old man who has had headaches for nine months. He was otherwise completely well, although in retrospect a slight personality change could be identified. A CT scan followed by an MRI scan revealed a massive right frontal tumour.

There is significant mass effect from the tumour, with midline shift and subfalcine herniation (left image). The large size of the tumour and the degree of shift, indicate that it has likely been present for many more months than the patient has had symptoms. There is also a degree of enhancement indicating that there is likely to be some anaplastic or malignant components to the tumour.

The tumour was completely excised in a 4-hour operation and the patient woke with no deficits. The image on the right is of the CT scans on day one post-op. The histology was of an Anaplastic Mixed Glioma. Given that surgery does not provide a cure, radiotherapy will probably be indicated.



Hospitals:
The Wesley Hospital, Auchenflower
St Andrew's Hospital, Spring Hill
Holy Spirit Northside Hospital, Chermside

Regional Clinics:
St Vincent's Medical Centre, Toowoomba
Sunshine Coast Private Hospital, Buderim
Tweed Day Surgery, Tweed Heads
Mater Private Hospital, Rockhampton

DID YOU KNOW?

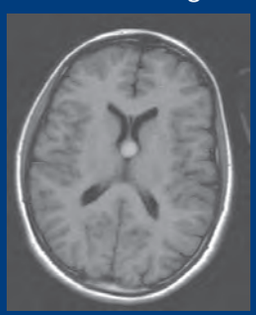
The human brain has doubled in size over the last two million years[1]

The adult human brain weighs approximately 1.4 kilograms[1]

[1] Juan, Dr Stephen. (2000). *The Odd Body and Brain*. Sydney: Harper Collins Publishers.

GREY MATTERS QUIZ

What is the obvious pathology on this axial T1 weighted MRI?



a) SEGA (Subependymal Giant Cell Astrocytoma)
b) Tuberous Sclerosis
c) Colloid Cyst
d) Normal anatomical variant
e) Cavum Vergae

Please email Kate McBain with the correct answer to katem@brizbrain.com.au by close of business 5 January 2010.

All correct entries will go into a draw to win a $50 Coles Myer voucher. The winner will be notified by 6 January 2010.

NEWSLETTER SUBSCRIPTION

To ensure that you always receive your quarterly copy of Grey Matter/Hope Matters, please visit www.brizbrain.com.au and follow the prompts to subscribe.

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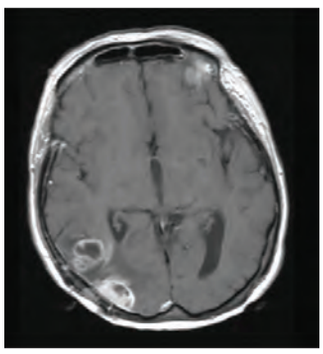
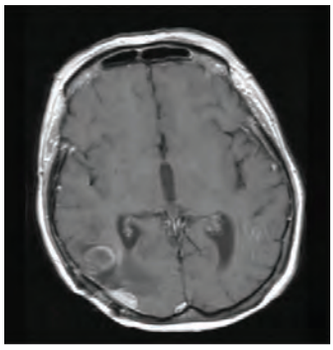
GLIOBLASTOMA MULTIFORME

Most of our clinical trials are aimed at improving the outcomes for patients with Glioblastoma Multiforme (GBM); the most common and aggressive form of brain tumour, which is unfortunately incurable. In a preliminary trial, we showed that tumour responses could be seen when combining normal chemotherapy with the new immune therapy which we were testing. We are following on this data with further immunotherapy trials which have now commenced.

The images to the left are from a patient with a recurrent GBM. The far left image is the recurring tumour and the image on the right is after chemotherapy, when combined with vaccine treatment. This shows a dramatic shrinkage of the tumour.

SPONSORS

BrizBrain & Spine Research Foundation would like to acknowledge our sponsors; Orphan Australia, Medtronic and Schering-Plough. Their contribution enables us to continue our research and improve the treatment and post-operative care of patients, so they can return to a normal life as quickly as possible.

UPCOMING EVENTS

BrizBrain & Spine Research Foundation is planning lots of exciting events to be held in 2010.

Watch this space for more details on future fundraisers!

DONATE TO THE RESEARCH FOUNDATION

As a not-for-profit charity, BrizBrain & Spine Research Foundation relies entirely on the generosity of donations.

If you would like to make a contribution to our charity, you can do so by calling Kate McBain on 3833 2500 or visiting our website (www.bbsresearch.com.au) and following the prompts to donate.

Hope Matters newsletter

Briz Brain & Spine RESEARCH FOUNDATION

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VIV'S QUARTERLY COLUMN

It has been an exciting few months for the BrizBrain & Spine Research Foundation. Of course we held our inaugural Brain Tumour Awareness Walk which was successful on two fronts; raising valuable funds for the foundation and also raising awareness in regard to brain tumours.

I would like to thank all the patients, families and health professionals who made this event such a success. Your support is invaluable to us.

The other exciting news is the appointment of two new research nurses to the Foundation; Samantha Clarke, who has recently completed her Masters in Nursing Research and Nicole Marsh, who has experience in research coordination.

Samantha and Nicole will both play vital roles in our current and future research projects with the Queensland Institute of Medical Research, QUT and Griffith Universities.

FUNDRAISING UPDATE

At the BrizBrain & Spine Research Foundation we have implemented some fantastic new fundraising ventures, in order to continue to advance the treatment of brain and spinal conditions to achieve better outcomes for our patients.

Our first fundraiser, Orange Thumbs, was held on September 18-19 in Bundaberg. In exchange for a gold coin donation, many residents painted their thumbnails with vibrant orange nail polish to raise money for BrizBrain & Spine Research Foundation and Camp Quality Bundaberg.

The concept began when local Bundaberg resident and BrizBrain & Spine volunteer, Garry Lawton succumbed to having his nails painted by a child at Camp Quality, where he often spends time as a volunteer.

Mr. Lawton spent the next week collecting donations from anyone who enquired about his brightly painted fingers, and so the event was born.

Orange Thumbs was highly successful and we were thrilled with the showing of community support, raising a total of $3,654. We would like to thank Garry Lawton for his tireless fundraising events, as well as all of the contributing businesses for their support.

In addition, the inaugural Brain Tumour Awareness Walk was held on 1 November at New Farm Park in order to launch International Brain Tumour Awareness Week.

Employees from BrizBrain & Spine, the Research Foundation, St. Andrew's Hospital and The Wesley Hospital, as well as patients, families and friends, sacrificed their Sunday morning to walk 4 kilometres to raise funds and awareness for brain tumour research.

Over 250 people attended and proudly wore bright orange t-shirts during the Sunday morning stroll. Afterwards, the walkers enjoyed a well-earned sausage sizzle as they socialised together in the park to mark the end of a triumphant fundraiser.

Thank you to everyone who participated in the walk and helped to make it such a success. We raised a total of $6,837.87 and are looking forward to next year!

Please turn the page for images of the Brain Tumour Awareness Walk.

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