



Tuesday 13 April, 2004

AUSTRALIAN MEDICAL RESEARCH LEADS THE WAY

Australian researchers have taken a big step toward establishing diagnostic testing for one of Society's worsening health issues – bipolar disorder.

In a ground-breaking study, the researchers from the Black Dog Institute in Sydney have found that the human brain processes information differently if a person suffers from bipolar disorder.

“Clinically we know a lot about bipolar disorder but nowhere in the world is there any diagnostic test,” according to Dr Gin S. Malhi, Senior Lecturer, University of New South Wales.

“We are not even at first base so far as diagnosis is concerned. Grouping of symptom clusters is how we determine if a person suffers from the disorder at the present time,” he said.

This could all change dramatically in the future, depending on the success of future studies using Magnetic Resonance Imaging (MRI) to identify regions of the brain associated with bipolar disorder and how they alter in people suffering the disorder.

(MRI is an advanced diagnostic imaging technique that produces high resolution, computerised imaging of the human body, sometimes in 3D)

“We still need to do more studies but we are looking at better diagnosis and possible anticipation of the illness in offspring,” he said.

Evidence is strongly suggesting bipolar disorder - previously known as Manic Depression – may be dramatically increasing in modern society.

While it had been thought the disorder occurred in one percent of the population, recent analyses suggest it is much higher, especially with the milder variety, bipolar II.

Symptoms of bipolar disorder are when individuals display exaggerated mood swings. Both males and females are equally affected but it now appears to be more common in people in their 20's.

Dr Malhi said the Australian research team had recruited female patients, aged 19 to 53, with bipolar depression, to participate in the recent Black Dog Institute study. Volunteers of a similar age group, but not suffering from the disorder, also underwent the same tests and brain scans and the results from the two groups were compared.

“What we now know is that there are distinct patterns of brain activation in patients with bipolar disorder compared to healthy subjects,” according to Dr Malhi.

“For example, bipolar patients when depressed were unable to engage the frontal regions of the brain as much as their healthy counterparts, indicating that they struggle to perform sophisticated tasks. “

He said future studies should ideally seek to subtype bipolar disorder and find indicators of outcome.

More studies are needed over the next two to three years but the investment is extremely worthwhile; especially when you consider bipolar depression is one of the most disabling and highly stigmatised disorders – as well as the most deadly.

Current research work is funded from the National Health and Medical Research Council and Rotary to the tune of \$180,000 a year. A further \$500,000 is needed to continue the Australian team's efforts over the next three to four years.

Dr Malhi said the Black Dog Institute was already establishing a Register of Volunteers, to participate in future studies. People interested can contact a member of Dr Malhi's team on (02) 9382 2997.

Bipolar Disorder in Australia

- Bipolar Disorder (Manic Depressive illness). “Highs and lows”.
- No single cause for the disorder – many factors act together to produce the illness
- At least 50% of people with bipolar disorder (BD) have a parent with a mood disorder – most often major depressive disorder
- A person has a 30% chance of inheriting a mood disorder if one parent has BD, and a 60% chance if both parents have it
- Brain-imaging techniques are helping to identify what goes wrong in the brain to produce BD
- The functional impairment associated with BD is even more devastating than that of depression – marital break-ups, destruction of personal relationships, job loss, substance misuse and suicide
- Chances of being divorced/separated are 3 times higher than in the general population
- People with BD are only 60% as likely to work
- Death rates for untreated BD are higher than for most types of heart disease and some types of cancer
- 1 in 6 Australians with BD dies by their own hand. Over 1 in 4 attempt suicide, nearly twice the rate with depression. Two-thirds contemplate suicide.
- With early and ongoing treatment, people with BD can live in the community and lead relatively normal lives
- In Australia the lifetime prevalence of BD is about 1.2%
- Prevalence is generally equal across the sexes with the exception of rapid cycling which arises mostly in women
- The number of new cases per year is about 2.34 per 1000
- **There are nearly 100,000 Australians with BD in 2004, 0.5% of the population. This declines slightly with age.**
- Over 2000 people commit suicide in Australia each year
- **1 in 8 suicides are of someone with BD**
- Health care costs for people with BD are around \$300 million in 2004

- **In total the loss of earnings from loss of employment and absenteeism is estimated for 2004 as over \$464 million dollars**
- **Urgent need for diagnosis and early intervention; education and awareness; and research.**