EVALUATION OF HEAD INJURY

by Dr Geoffrey Boyce

An all to infrequent requirement of both doctors and lawyers is the need for assessment of people suffering acquired traumatic brain injury (TB).

It is estimated that in the United States each year there are some two million new cases of Traumatic Brain Injury. Broadly speaking, these statistics are such that about five percent of these people die and possibly five percent of these people go on to a severe persistent vegetative state. A third of such people have a significant debilitating injury including motor paralysis and impairment of thinking or cognitive function.

At least fifty percent suffer from so-called mild Traumatic Brain Injury. This is also sometimes referred to as having a Glasgow Coma Scale of thirteen or more. The Glasgow Coma Scale is to fifteen and a person at fifteen is fully conscious and alert.

No one has any difficulty recognising the problems associated with those unfortunate individuals who are paralysed, who have complete loss of thinking abilities and other impairment.

A major problem exists for those groups who suffer mild traumatic brain injury and yet do have deficits.

As a Neurologist who has been involved with these people for well in excess of twenty-five years it is my experience that those people suffering mild Traumatic Brain Injury frequently do have long term problems. The most common of these I find are persistent headache, minor problems of impairment of cognitive function, significant depression and psychological deficits. The biggest problem that 1 find that these people face is the lack of awareness of the problems of mild Traumatic Brain Injury amongst the medical profession and a lack of effective Brain Injury Rehabilitation facilities in most Australian states.

Whilst it is not a perfect example, in New South Wales each health region has a Brain Injury Assessment and Treatment Unit. Unfortunately, such a system has not been developed in Queensland. I am not aware of the situation in the Northern Territory.

My approach to such cases is either as a requirement for assessment one must have an assessment by a Neuropsychologist. Neuropsychologists are graduates in either psychology or arts. They have done further work and are accredited in neuropsychology by their professional colleges. It is generally accepted that a full and final assessment of such a case cannot be done in under two years as it can take up to two years for the full improvements to occur in a head injury case.

All cases should be seen by a Neurologist who looks for subtle changes of brain function. it is not infrequent for persons suffering Traumatic Brain Injury to also have associated spinal injury and other pathology which clearly needs to be evaluated.

The exact imaging test to do for such cases has been controversial. I can recall in the mid 1970s when CT scanning became available it was felt that neuro-radiology would be a dying art. This has not been the case and indeed very few people would rely on a CT scan to make a final assessment. it is, however, clearly the test Of choice to be done at the earliest onset of the head injury, particularly to look for the presence of bleeding within the brain and skull fracture.

The next test was the MRI scan, again which was felt would obviate the need for another testing. However, MRI has also been available now for almost fifteen years and there have been many changes in the types of MRI done including the use of enhancement materials.

Some of your readers may have heard me speaking about Positron Emission Tomography (PET scanning) at the Aplaconferences. PET scanning is the use of radionucleitide materials followed by the use of very expensive cameras. PET scanning to date is available in most capital cities. However, private PET scanners are only available in Brisbane and Melbourne (to the best of my knowledge). Scanning is not covered by the Health Insurance Commission and Medicare.

A half brother of PET scanning is the so-called SPECT which stands for Single Photon Emission Computer Tomography. It is sometimes known by the radionucleitide dye used for the test called Cerotec.

Cerotee scanning is available in Darwin. It is covered by the Health Insurance Commission. Speaking to the Nuclear Medicine staff at the Darwin Private Hospital recently, I have been told that whilst it is available it has not been utilised in the last three years.

I am using SPECT scanning more often than PET scanning at the present time even in Brisbane where both are available.

Unlike MRI scanning which gives a very good appreciation of the underlying anatomy,scans such as SPECT and PET show up the functioning physiology of the brain. The two tests are complementary, however, it is very often the case that one can have a perfectly normal MRI scan and have a significant cognitive impairment as assessed by an experienced Neuropsychologist.

Some pundits have used the phrase "juries love broken bones". Clearly, no one likes broken bones, however, what is really meant by the term is that at least there is objective evidence of an underlying problem. One can see the broken bone on the xray and assuming that is the basis of the claim there is very little argument, The biggest problem that has faced medicolegal issues such as mild traumatic brain injury is that there has not been an objective basis to measure the deficit with the head injury. Whilst it is not the perfect answer and there probably is not a perfect answer, Cerotec scanning is a

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valuable addition to the assessment of such cases.

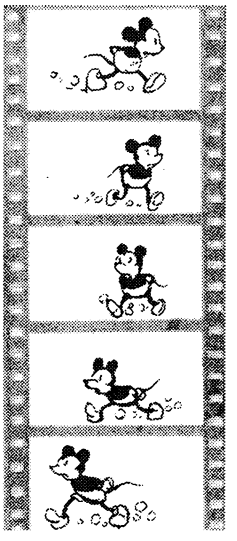
In conclusion, Personal Injury Law Specialists when faced with cases of Traumatic Brian Injury should make sure that they have a full neuropsychological work-up of their case. They should have a full neurological assessment of that case. Where there is an issue about the extent of Traumatic Brain Injury, the use of imaging modalities such as SPECT adds valuable objective data to the above two assessments.

Interested practitioners should be aware that there is a Neuro-Law letter produced in the United States for Attorney's with an interest in neurological injuries. There is also an Association which meets each year and has some very valuable books on the above issues.

Dr Geoffrey Boyce is a Consultant Neurologist who visits Darwin Private Hospital every two months.

Head to the Deckchair cinema this dry

Just after the cyclone headed off and took the last of the rain with it, the Deckchair Cinema opened on 20 April 2001. It's at the Wharf again this year and also next year. After that it may relocate to the Ampitheatre. The sound and projection equipment has been substantially upgraded and with the selection of films on offer this year should be particularly enjoyable.



Movies generally start 7.30pm or 9.30pm, Wednesday to Sunday. So why not unwind after work by taking in an art film or an old classic under the stars at the Wharf. Drinks and food are available.

This year's program should be in the centre of this issue of *Balance*, so see if anything in it appeals to you an head on down to the Deckchair this dry.

If anyone is interested in joining the Darwin Film Society, contact Bill Priestley on 8941 5957.

Centre for South East Asian Law- International visitors in 2001

The Centre for Southeast Asian Law (CSEAL) at NTU has had an active start to 2001, with two international visitors presenting seminars at the University in February and March this year. Also, Director of the Centre, Dr Christoph Antons, was invited to speak at a number of seminars in Japan and Munich late last year, and spent three months as a visiting fellow in Japan until the end of January 2001.

Professor Masaji Chiba, Professor of Comparative Law and Legal Sociology, Tokai University Japan with Dr Christopher Antons. Photo taken at the staff club of Tokai University.

Dr. Jean Berlie from the University of Hong Kong visited CSEAL in February and presented a seminar on "Portuguese laws and customary laws in East Timor". Mr. Naoyuki Sakumoto of the Institute of Developing Economies in Chiba City near Tokyo was the most recent visitor to the Centre in March this year. Mr Sakumoto presented a seminar on 'Environmental Laws of Asia'.

Dr Antons spent three months as a visiting fellow in Japan at the Graduate School of International Development of Nagoya University, from late October 2000 to the end of January 2001. While in Japan, he presented papers on law and development, intellectual property law and on legal education in Australia at a series of seminars, including at the Japanese Association for Asian Law, at Kansai University in Osaka, the Institute of Developing Economies in Chiba City and at Nagoya University.

Toward the end of November 2000, Dr. Antons attended the 12th Ringberg Symposium of the Max Planck Institute for Foreign and International Patent, Copyright and Competition Law on 'Indigenous and Traditional Resources' at Ringberg Castle near Munich. Dr. Antons presented papers on the protection of traditional knowledge in Southeast Asia and on folklore protection in Australia and Indonesia.

The Centre is planning a workshop on Intellectual Property Harmonisation in Southeast Asia later this year. For more information, please contact Dr Christoph Antons, Director of the Centre for Southeast Asian Law, on 08 8946 6733.