

Tri-State Neurosurgical

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To Whom It May Concern;

Traumatic brain injury and in particular concussions are a major problem in the United States particularly from sports related injuries. Twenty years ago I co developed ImPACT™ neuropsychological test which is now the standard of care in the United States for return to play for athletes. We have now base line tested over 4 million athletes at all levels. Intracranial hematomas are a major concern. Presently CAT scans (equivalent in radiation to approximately 400- 450 chest x-rays) is the first test done in the emergency room. This represents an incredible waste of resources and unnecessary radiation.


For the last 6 months I have been evaluating the Infrascanner 2000 as a tool—along with a thorough neurological examination and history—to rule out intracranial hematomas in patients with TBI.

The utility of near infrared spectroscopy to detect intracranial hematomas was first demonstrated in 1995 by my friend Raj Narayan in the Journal of Neurosurgery. Recently in the Journal of Neurotrauma (volume 27, pp. 1597-1604, 2010.) he again demonstrated a clinical evaluation of this device for detecting intracranial hematomas.

In my experience and also based on other multicenter clinical trials this device represents a major advance to identify high risk patients particularly at accident sites who can be prioritized for transportation to an appropriate center where neurosurgical treatment is available. Dr. Narayan and others have also demonstrated its use as a tracking device pre and post operative in ICU patients, in rural areas of our country, and also as a great device for use within our ambulance network to prioritize transportation to emergency room either by helicopter (which is much more expensive) or ground transportation.

All in all I believe this infrascanner represents an important new tool for the screening and management of patients with TBI.

Yours Sincerely,



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