

What Family Lawyers Should Know about Brain Injury

BY STEWART M. CASPER

Early in my career, I did some work in the family law arena, and I've been asked to provide some insight to the family bar about issues relating to brain injury. Most of my practice involves traumatic brain injury (TBI); some includes medical malpractice related brain injury. Traumatic brain injury can implicate issues of neurodegenerative sequelae or consequences of trauma. Also, there are a host of atraumatic neurological conditions that for the family bar may have implications similar to those in TBI. Those conditions include but are not limited to hemorrhagic stroke (think "burst"), ischemic stroke (think "clot"), Alzheimer's disease, dementia, multiple sclerosis (MS), and Parkinson's disease (PD).

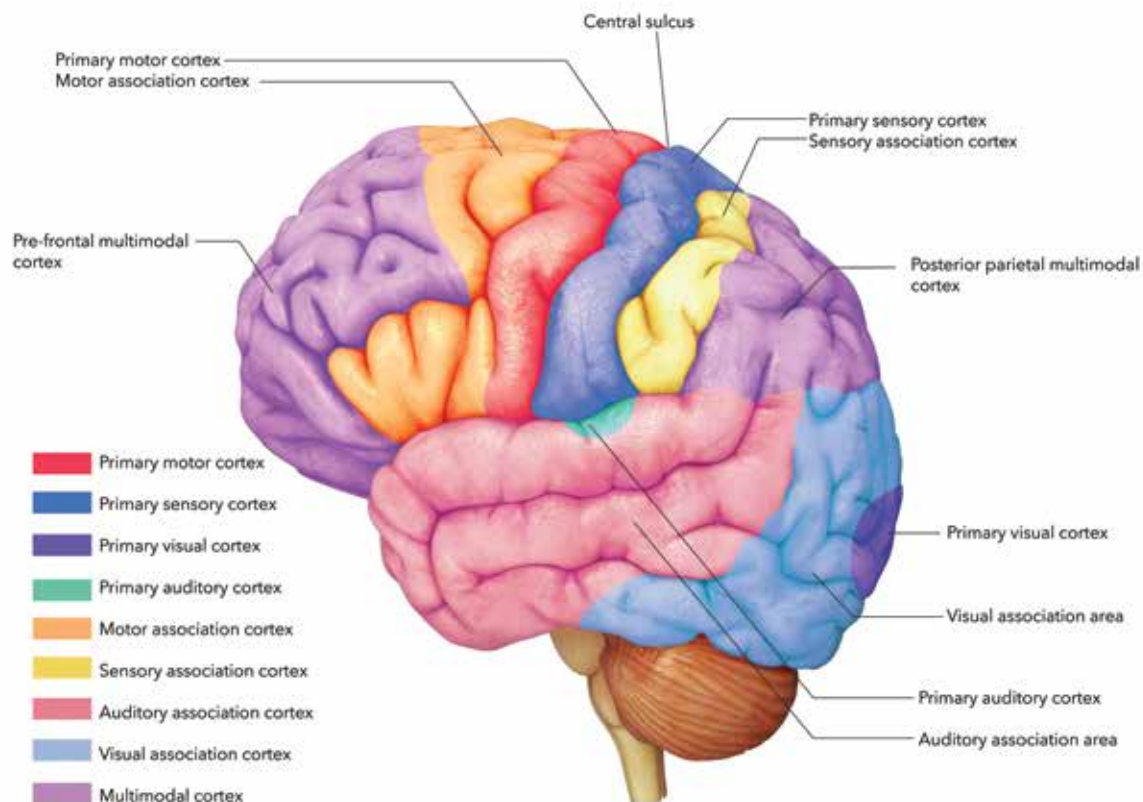
The Brain

When I started practicing brain injury law, the brain was mostly seen as a complicated organ that regulated the various

functions of the human body on a brain "geography" basis.

For example, the frontal lobes control executive function, the occipital lobe controls vision, and the left temporal lobe controls speech. Since the early 1980s, it has become increasingly clear that the brain functions in interconnected networks of primarily gray matter (neurons) and white matter (axons) that serve as the "wires" plus assorted related structures. The vastness of the brain can only be understood recognizing that there are billions of axons and neurons. Damage in any single location may produce any number of clinical presentations that can impact physical, cognitive, emotional/behavioral, and/or sleep functions. For this reason, TBI is considered to be heterogeneous. Importantly, an injury to white matter can interfere with a number of cognitive functions previously thought to be centered primarily near the inciting injury or at some distant location or all of the above.

FUNCTIONAL AREAS OF THE CEREBRAL CORTEX LATERAL VIEW



Physical symptoms of a concussion:

- Dizziness
- Problems with balance
- Nausea and/or vomiting
- Sensitivity to noise
- Sensitivity to light
- Blurred vision
- Headache
- Low energy level
- Unequal pupils
- Seeing flashing lights

Mental symptoms of a concussion:

- Difficult remembering
- Confusion
- Inability to concentrate
- Inability to think clearly
- Mental foginess
- Inability to remember new information
- Trouble paying attention
- Loss of focus

Sleep symptoms of a concussion:

- Sleeping more than usual
- Unable to fall asleep
- Sleeping less than usual

Emotional symptoms of a concussion:

- Easily angered or upset
- Feeling nervous or anxious
- Feelings of sadness
- Crying more than usual
- Lack of interest in usual activities
- Depression

Adapted from J.S. Kutcher & C.C. Giza, *Sports Concussion Diagnosis and Management*, SPORTS NEUROLOGY (Dec. 20, 2014); Table 7.2 in M. Lezak, et al., *NEUROPSYCHOLOGICAL ASSESSMENT* (5th Ed., Oxford University Press) (2012) at p. 184.

Concussion

Concussion is a brain injury. While the definitions of TBI have evolved on the basis of mostly consensus as opposed to scientific undertaking, the foundation for consensus has begun to erode. One thing not really in dispute, though, is that a concussion is a brain injury. My own theory is that emergency department health care providers and primary care physicians use the diagnosis of concussion because it is less threatening than brain injury or even mild traumatic brain injury (mTBI). The classification of TBI has come under scrutiny for lack of accuracy since it was adopted in 1993 by the American Congress of Rehabilitation Medicine, but never as much as in the recent publication from the National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Care Services; Board on Health Sciences Policy; Committee on Accelerating Progress in Traumatic Brain Injury Research and Care, *Traumatic Brain Injury: A Roadmap for Accelerating Progress* (2022).

Most notably, for those who experience chronic symptoms following what was thought to be “only a concussion,” there can be long-term, sometimes life-long, consequences of the injury that can impact not only quality of life, but also the ability to work. Employment and earning capacity are important considerations for a family lawyer.

Symptoms

As noted above, the symptoms following a TBI generally fall into four distinct categories. Headache seems to be the most prevalent symptom. Often, patients are unaware of

more subtle symptoms, and it is common that primary care physicians and even specialists are unsophisticated regarding TBI issues. This underscores the importance of involving a head injury specialist in the diagnosis and treatment.

Both the specialties of neurology and physical medicine and rehabilitation (PM&R) have subspecialties in brain injury medicine (BIM), although the roster of certified physicians remains limited. Even within BIM, the members tend to either treat patients or posture for forensic work. If litigating a family case, you will want to know the reputation of the health care providers involved. Similarly, as there are differences in the expertise in every profession, there is a vast difference between personal injury lawyers and lawyers with a reputation for handling TBI cases. The learning curve is steep.

Brain Injury Has at Least Two Phases

When the brain is injured either because of an object striking the head or because of an acceleration-deceleration injury (whiplash or head striking a hard surface), the brain generally experiences a combination of linear and rotational forces within the hard vault that is the skull. It is thought that more damage can be inflicted with rotational forces. The damage, if any, can be wide ranging and can include contusions, hemorrhages (subdural or epidural), and damage to small vessels that produce a slow leak that accumulates over time and requires surgery. When there is damage to any tissue of the brain (parenchyma), a secondary injury is triggered that we refer to as the neurometabolic cascade (NMC).

The NMC is a complex series of chemical, metabolic, and

electrical (ionic flux) pro- and anti-inflammatory responses involving glutamate (the energy source for the brain), sodium, and calcium. These changes create a brain energy crisis, impair neurotransmission, alter cytoskeletal proteins, and can cause cell death. This can occur in a vicious cycle, particularly because the injury can cause the blood brain barrier to “leak,” permitting “foreign” substances, including blood products to come into contact with brain tissue, perpetuating the toxic cycle and adding inflammation. Jeffrey S. Kutcher & Christopher C. Giza, Sports Concussion Diagnosis and Management, 6 *Sports Neurology*, 1552–69 (Dec. 20, 2014). It is bad for the brain. The secondary injury also helps explain the reasons that a victim of TBI can experience both worsening and fluctuating symptoms for days, weeks, months, and sometimes years after injury.

For a family lawyer, the most important take-away from the NMC is that there are at least two recognized phases of a TBI. The first phase is the initial injury. The second phase includes the NMC, for which the end is scientifically unclear and can persist through cell death and neuro-inflammation that lasts for years. Importantly, the second phase will likely determine the time during which there may be further deterioration of the patient’s health. This is an important consideration for financial obligations and the lack of predictability concerning long-term outcome.

Specialists

Other specialists often involved in TBI cases include neuropsychologists, neuro-optometrists, or rehabilitation optometrists (and rarely neuro-ophthalmologists), headache specialists, and a variety of therapists (physical therapy, occupational therapy, vestibular therapy, speech, and mental health). Another area of specialization is advanced neuroimaging. This is very important: standard clinical imaging for head injury includes CAT scan and MRI. Neither modality is sufficiently sensitive to identify microscopic damage that often accompanies the milder form of TBI. There are select centers around the country where advanced techniques can be performed that lend additional data to the picture and inform clinicians in the aid of a differential diagnosis. The most commonly used protocols for advance neuroimaging are diffusion tensor imaging (DTI) and NeuroQuant™. The former assesses the structural integrity of major white matter fibers, and the latter assesses brain volume.

Work Capacity/Loss of Earning Capacity

There is certainly overlap between family law cases and personal injury cases when it comes to vocational issues and earning capacity. Experience and past earnings play an important role and provide some framework looking to the future.

In cases involving brain injury, a party’s limitations, symptoms, and medication requirements are all important. In this regard, condition that trigger symptoms also are significant. Migraine headaches can be triggered by fatigue,

noise, visual disturbance including bright lights, computer screen time, neck pain, to name a few. Those triggers can also account for exacerbating cognitive limitations, including slowed processing, reduced attention and concentration, and limited memory. All of those factors can and likely will impact performance and productivity. In the final analysis, competitive work demands that an employee perform his or her job on a regular, consistent, and reliable basis.

The law in injury cases, generally recognizes claims for lost earnings and loss of earning capacity. The concepts have similarities but are distinct. The former is heavily dependent upon a wage or earnings history. The latter is more flexible, recognizing that a fact finder can consider a fairly wide range of evidence to arrive at earning capacity without the requirement of mathematical precision. Earning capacity claims provide flexibility looking to the future, which necessarily

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implicates certain elements of speculation. Earning capacity calculations are particularly beneficial for home makers, stay-at-home parents, self-employed, children, and others who have not yet entered the adult work force, commission salespeople, and others whose income fluctuates significantly.

While the calculation of earning capacity loss often depends heavily upon a single profession, there can be variability for a range of professions, different levels of education, and specific talents and interests demonstrated that might provide options for alternate careers. Other methodologies, particularly for people with cognitive disabilities attributed to neurological conditions including TBI, attempt to factor a shortened work/life expectancy predicted based upon the United States Census Bureau’s American Community Survey (ACS) found at <https://www.census.gov>. Calculations based upon the ACS recognize that

few people maintain continuous employment until retirement and that people with disabilities are more likely than the non-disabled worker to experience more disruptions in continuous employment and retire earlier. These factors can be computed into a loss of whole and fractionated years that can be multiplied by an applicable rate of pay to produce an estimated loss of earning capacity.

Family Law Consult after Personal Injury Case

It should be obvious that a family lawyer on both sides should seek and obtain the records that underlie any serious personal injury claim. Apart from documenting the financial contribution of a PI recovery to the family unit, the records documenting the injury and damage claims are almost certainly relevant and potentially material to any resolution of a marital dispute.

Costs Related to Brain Injury

Regardless of whether an adult or pediatric brain injury survivor, there are important considerations for covering future health care costs. Those costs will vary by the scope of the injury. TBI is a heterogeneous injury highly dependent upon the injurious event, the location(s) of the injury within the brain, and the resulting deficits.

If the injury-producing event resulted in a personal injury claim, the case “work-up” likely documented at least some aspects of the injury and need for future care. Assuming that the liability coverage is sufficient, a TBI workup may include a life care plan (LCP). In the absence of sufficient coverage, the workup in an injury case might exclude a plan for future care. A LCP is based upon reasonable and necessary medical and supportive care projected for a lifetime. Even in the context of significant liability coverage, some of the recommended services may be covered by major medical insurance, but some of the care and supportive services may be beyond the scope of first party coverage. A certified life care planner is trained to identify, summarize, and obtain cost projections for both insured and uninsured items. In a liability claim, those lifetime costs are generally set out as annual costs and then reduced to present value by an economist.

The current state of the science is equivocal about the increased risk that the less serious forms of TBI (concussion, mTBI) have on the development of neurodegenerative conditions such as Alzheimer’s disease, dementia, Parkinson’s disease, and MS. In the case of more “serious” classifications of TBI, the risks of degenerative changes over time are better documented. These considerations should be important in the context of medical coverage, alimony, child support, employability, and earning capacity.

Children: Brain Injury and Issues Related to Education

A child with a history of concussion or TBI (or other brain and/or non-brain related disability), is entitled to a public

education in the least restrictive environment under the Individuals with Disabilities Education Act (IDEA). IDEA is a federal law and mandated. The services mandated relate to providing publicly funded education services through age 21. The mandated services and the process for obtaining them are beyond this paper. However, a parental request or through school initiation may trigger the scheduling of a planning and placement team (PPT) meeting. The PPT is generally attended by parents, teachers, administrators, special education staff, and professionals (in person or through reports) to determine if the child’s educational needs are being met in light of a disability that impairs a major life function. The PPT may determine that the child requires an Individual Education Plan (IEP) or a “504 Plan” for academic accommodations pursuant to Section 504 of the Rehabilitation Act of 1973.

While an IEP may address some of the health care needs of a child to facilitate treatment of a TBI for educational purposes (PT, OT, speech and language therapy), the services provided through a public school system are rarely sufficient to address the total needs of a student disabled by a brain injury.

504 accommodations are less comprehensive and less disruptive of normal school routines. They include, for example, adjustment of educational demands with extra time on tests and assignments, limiting the number of tests per day, and providing tutoring and perhaps note taking or the option to record a class.

The need for an IEP or a 504 should also be factored in consideration of child support, funding for college education, and retention of experts to support the special education process. In that regard, there are education attorneys who routinely navigate the IDEA process. Those lawyers are generally, but not always, different from the lawyers who handle TBI claims.

Brain Injury and Parenting

Unquestionably, a family with a brain-injured child will encounter extra challenges. In the context of TBI, those challenges may be the equivalent of those present on the spectrum of attention-deficit/hyperactivity disorder (ADHD) or those with brain injury related behavioral dysregulation. The combination of physical, cognitive, emotional, behavioral, and sleep issues may significantly burden the family environment, including both parental and sibling relationships. Under such circumstances, both individual and family therapy may be warranted.

In the family with a brain-injured parent, there is often a need to supplement the parent’s services. Some parents with TBI are unable to or should not drive because of seizure activity or because of reduced processing speed. Headaches and fatigue are two of the most common symptoms of TBI. The reduced ability to attend to parenting can be harmful if not dangerous. Symptoms of TBI may be incompatible with

good parenting. Improving those situations may require babysitting, transportation services, and tutors.

Brain Injury Relating to Domestic Violence, Credibility, and Financial Obligations

Brain injury can have a staggering impact on the quality of life for the victim and family members. While the most obvious impacts may be financial, in the family law sphere there are potential problems that are rooted in (1) events that caused or contributed to the breakdown of the marriage; and (2) aspects of the litigation process.

There exists an epidemic of brain injuries hidden behind the curtain of domestic violence. See “The Hidden Epidemic of Brain Injuries in Domestic Violence,” *New York Times Magazine* (Mar. 1, 2022). A police officer responding to the scene of domestic violence might mistakenly assume that a battered domestic partner is intoxicated. A brain injury might render the domestic violence victim less able to recall events and good exercise decision making because of diminished executive function; cause word retrieval compromise; and diminish overall function because of depression, anxiety, and post-traumatic stress disorder. The symptoms of a TBI may become manifest when attempting to hire a family law attorney, when appearing in court, and when giving testimony. Moreover, it is common for the manifestation of brain injury related symptoms to become more pronounced in stressful situations. In a domestic situation, the patient may require adult daycare, a home aid, or companion services.

A Trial within a Trial

The complexity of TBI as well as other conditions involving neurologic injury might dictate a trial within a trial in given family cases. In that regard, particularly in high-net worth cases, a family law attorney should consider consulting or perhaps retaining a brain injury “specialist,” who can assist in the preparation of the brain injury part of the case. That specialist might be either an attorney or perhaps a physician. At minimum, it is imperative that the family lawyer understand the implications of an injury and diagnosis. In the context of trauma, a patient who is experiencing symptoms three months after an injury is a candidate for a closer evaluation.

Referrals

Unsurprisingly, family lawyers often become the “go to” lawyer for a variety of legal issues beyond family law. Those issues may include real estate transactions, wills and estates, and even accidents. So long as permitted by local ethics rules, it is customary in the personal injury bar to compensate the source of a referral. And in the realm of ethics, few areas in personal injury practice are as demanding as TBI litigation. Make certain that any referral takes into account expertise in the field. Failure to do so may expose you to a malpractice claim.

Locating referral sources with expertise in the TBI field

can be challenging because there is a plethora of lawyers who list brain injury on their websites, while relatively few attend the multiday national brain injury continuing education programs. Apart from “word of mouth,” state trial lawyer associations may be a source for plaintiff lawyers with the expertise to work up or evaluate a brain injury claim. Also, the American Association for Justice has a very active brain injury group called the Traumatic Brain Injury Litigation Group. One of the officers listed on the TBILG’s website should be able to refer you to a competent brain injury lawyer in your state.

Conclusion

Regardless of whether they are a party to a matrimonial proceeding or the child of a party, someone with a history of a concussion, a TBI, or any acquired brain injury will refocus any family proceeding because there are many important factors to consider. The time has long passed when knowledgeable health care professionals have dismissed a head injury as “only a concussion.” Such a history now demands a closer examination by health care providers and consideration by family lawyers as well. **FA**



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