

Is qEEG Evidence Admissible to Show a Brain Injury? A Washington State Court Says No

In Washington, nearly every injury lawsuit now includes a traumatic brain injury claim. As brain MRIs and CT scans are almost always normal, plaintiffs' counsel are seeking new ways to "show" the jury "proof" of the brain dysfunction. One of the new trends is the use of quantitative electroencephalography (qEEG) testing, which produces ominous, multi-colored brain charts and graphs that purportedly show this brain injury. A King County Superior Court judge recently prohibited the use of qEEG evidence to establish the diagnosis of a traumatic brain injury, holding that qEEG evidence cannot satisfy the *Frye* standard.

Quantitative electroencephalography is a test used to measure electrical activity in the brain, where data is collected through small metal discs connected to the patient's scalp. The discs provide data that can be read through visual analysis. However, there is little consensus in the scientific community on the viability of qEEG as a tool to evaluate traumatic brain injuries. Particular issues with qEEG include that: (1) there is little agreement about the proper methods to analyze the data and conduct the statistical analysis; (2) it fails to account for potential covariates, including related diagnoses and medication; and (3) there is a significant potential for bias in analyzing the data.

In *Habenicht v. Medina, et al.*, No. 20-2-17024-1-KNT (King County Sup. Ct., 2020), Judge Port granted the defendants' motion to exclude the plaintiff's qEEG evidence. The plaintiff alleged that she had experienced a history of head injuries and sought to produce records of her qEEG treatments and diagnoses.

In response, the defendants moved to exclude this evidence, first arguing that qEEG is not generally accepted by the relevant scientific community for the purpose of diagnosing traumatic brain injuries, and was therefore inadmissible under *Frye v. United States*, 293 F. 1013 (1923). Applying *Frye*, courts throughout the country have excluded qEEG evidence in the context of alleged brain trauma. For example, the Florida Supreme Court has noted that the relevant scientific community for purposes of *Frye* was neurologists, and that testimony showed how "qEEG is not a reliable method for determining brain damage and is not widely accepted by those who diagnose neurologic disease or brain damage." *Hernandez v. State*, 180 So. 3d 978, 1009 (Fla. 2015). And in an appeal from a jury verdict following a motor vehicle accident, the Colorado Court of Appeals reversed the admission of qEEG evidence under *Frye*, concluding that it "is not generally accepted in the relevant scientific and clinical community for the purposes for which the evidence was offered," to identify a traumatic brain injury. *Tran v. Hilburn*, 948 P.2d 52, 57 (Colo. App. 1997). Courts have done the same in jurisdictions that have adopted the *Daubert* standard. See, e.g., *Nadell v. Las Vegas Metro. Police Dep't*, 268 F.3d 924, 927 (9th Cir. 2001); *In re Breast Implant Litig.*, 11 F. Supp. 2d 1217, 1238 (D. Colo. 1998).

No less importantly, the defendants also argued that qEEG evidence is improper under ER 702, which requires causation to be established with "reasonable medical certainty." *Reese v. Stroh*, 907 P.2d 282 (Wash. 1995). Because the qEEG diagnosis did not, and could not, distinguish between the plaintiff's pre- and post-accident conditions, the defendants argued that the qEEG records were irrelevant to the causation analysis.

Judge Port agreed with the defendants on both arguments and prohibited the plaintiff from using



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“[a]ny expert report or testimony on the basis of qEEG” under *Frye*. The court first recognized that “qEEG is not generally accepted in the relevant scientific community for purposes which Plaintiff intends to use it here — diagnosis and treatment of her alleged traumatic brain injury.” On this foundation, the court held that the plaintiff’s qEEG evidence “would be unhelpful to the jury in assessing what injury, if any, was caused by the” alleged incident, and therefore was inadmissible under the *Frye* and ER 702 standards.

This ruling, one of the first of its kind in Washington state, falls in line with the majority of other jurisdictions that have addressed this issue, who have concluded that qEEG evidence is not a valid way to show an alleged traumatic brain injury. It is expected that other jurisdictions who continue to address this issue will hold the same.

The Cozen O’Connor team, led by Connor Rowinski and Robert Lee, filed the joint motion to exclude on behalf of the defendants. The full ruling is available [here](#).
