Case Study: A 9-year-old Reclaims his Life

Like most third-graders, AI was obsessed with iPad applications, Wii video games, Little League, and shooting hoops at the local recreation center. He spent hours online mastering Angry Birds and Lego. He became a budding sound engineer, recording audio tracks and experimenting with computer playback tricks. He got along well with his mom and dad. His best friend was his cousin, Claudia.

But unexpectedly, this 9-year-old’s utopia crashed. At first, flu-like symptoms became so intense that his parents admitted him into the hospital. Soon afterward, his mother found him on the floor having a seizure. Despite anti-epileptic medication, the seizures worsened in duration, intensity and frequency.

Something was clearly wrong, but family members couldn’t fathom what caused a sudden eruption in an otherwise healthy child. This once-active boy was in the throes of a neurologic disorder that mystified his family and disrupted a winning streak of good grades and an innate charm that adults loved.

AI was transferred to the pediatric intensive care unit of a local hospital, intubated, and given an EEG that showed diffuse delta slowing and rare spikes around the central vertex. Seizure control was achieved and he had improved motor, social and speech behaviors until three weeks later, when he became aggressive, tearful, and seemed to have hallucinations. With a 3-day steroid pulse, these symptoms improved. Work-up for infection was negative. But again he was admitted into the hospital for seizures. During a steroid taper, his physician observed sleep impairment, bowel and bladder incontinence and an inability to consistently follow commands.

At last, a definitive cause was revealed - his improvements after steroid therapy led physicians to believe that AI suffered from an immune-mediated encephalopathy. The seizures now under control, AI could seek treatment for the acquired brain trauma he was experiencing as a result of disruptive brain function.

Once stabilized in the pediatric unit, AI received acute rehabilitation at a children’s hospital and was admitted into Centre for Neuro Skills (CNS). Goals were specified, with improvements sought in speech, language, executive function, mobility, safety awareness, mobility skills, strength, endurance, and gross motor coordination. Basic activities of daily living were addressed too, as were skills of focusing and completion of tasks.

When AI arrived at CNS, he was burdened by severe concentration issues that impacted all therapies. He was easily distracted, impulsive, and had serious attention span limitations. However, with a treatment plan that targeted these deficits and a family that supported CNS’ strategy, AI was on his way to reclaiming his life.

Family support was critical – and effective. His parents would not allow AI to practice maladaptive behaviors at home. They made him apologize for inappropriate verbal and physical actions. He was getting back on track in all realms of life, with cooperation, understanding, and patience from his parents and CNS staff.

The auditory hallucinations AI was experiencing required that he have a room to himself in occupational and physical therapy. Too much overstimulation exacerbated his symptoms. At the hospital, AI invoked fear in the staff - he was strong and hit hard. At CNS, his initial behavior was combative and reactionary. He made offensive verbal and hand gestures. Words that seemed to be on the tip of his tongue could not be verbalized. He was frustrated and angry.

Therapy goals included strategies and techniques to facilitate age-appropriate initiation, sequencing, and problem-solving skills. In that effort, AI was monitored to determine his recall ability to build skills in anticipation of the next activity. iPad applications and verbal cues were used as prompts for recalling steps in a process, so that same process could be achieved repeatedly.
His progress was evident. After six months of rehabilitation at CNS, AI was able to express anger in a safe way, identify objects and pictures, and cease punching or kicking. He also achieved a higher level of vocabulary. He remembered staff names and their office locations. He even made jello in a brain mold. Eventually, the skills that were once so finely-tuned in AI began to emerge again.

All this was needed for the next big phase he was about to embark on at CNS. To his delight, the therapy staff came up with an innovative way to test his progress on every level. They created a science fair for young patients, and AI jumped at the chance to show his stuff. Nervous at first, he boldly announced his project - to build a volcano that erupted.

He dived into research mode. On YouTube, he found films about vulcanology. He used his art skills to draw volcanoes and brought in toy dinosaurs from home to populate his pre-historic drama. Outside the clinic, he built a paper-Mache model a foot tall, painted it, cast the T-Rexes as fierce fighters, filled the volcano with baking soda and vinegar and gleefully watched it puff and fume. Successful and confident, AI wanted to do another one.

His six-month CNS transformation from an angry, difficult, patient to a studious creator of a mini-Vesuvius was a long road, but his child-like wonder had been restored, along with the cognitive, social and intellectual skills to make his dreams come true. He discovered that challenging tasks required planning and patience, but the faux lava and steam eruptions were worth it.

His family is now considering the best classroom experience for AI, as he prepares to return to school. They want him to rejoin his classmates at his old elementary school. Meanwhile, the CNS staff commemorated AI and his accomplishments in a picture book that holds his artwork, photos and memories of all he achieved.