Concussive Injury, Suicidal Ideation in a 16-Year-Old Female Athlete

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The patient is a 16-year-old, white, female high school senior at an exclusive college preparatory school. The patient had played soccer for her own school team as well as for an elite travel team, the latter consuming a large portion of her time, impinging upon her time for homework and for socializing.

The patient’s mother reported that the patient had sustained several concussions playing soccer; that due to her injuries, she was banned from playing for life; and that because soccer had been an important part of her identity, she had been feeling increasingly depressed, and recently had expressed suicidal ideation.

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In the fall of her sophomore year, the patient sustained a concussive injury while playing for the travel team; she had been struck in the temple during a practice. She also suffered an injury to her eye. She reported headaches, irritability, hypersomnia, and decreased concentration. The patient was evaluated at a clinic in a tertiary care children’s hospital specializing in concussive injuries, which included ImPACT testing, and was also evaluated by neuro-ophthalmologists.

Upon her return to play 6 months later, following the first concussion, she played more hesitantly and was almost immediately reinjured, being knocked in the head by a stray ball during a game. She was eventually declared unfit to return to soccer.

The patient tried participating on the track team but was not happy with it. At her mother’s urging the following spring — partly to include an athletic activity on the patients college applications — the teen joined the crew team, but was not looking forward to returning to crew in her junior year.

Meanwhile, due to her head injuries and subsequent symptoms, the patient was absent approximately 50% of that academic year, and ultimately was unable to complete some of her courses.

On the initial visit, the patient met criteria for a major depressive episode; her suicidal ideation was also confirmed. She also had significant anxiety symptoms, including several panic attacks. Other stressors included a recent break-up the patient had initiated with her boyfriend; the impending departure for college of her older brother and only sibling; and the approach of her own junior year at her highly competitive school.

During a second session, this time unaccompanied by her parents, the patient talked at length about how desperately unhappy she had been on the travel team, and tearfully confessed that she had grossly exaggerated the symptoms she had been experiencing, particularly following the second injury. Prior to this session, the only person she had shared this with was her older brother.

The patient reported that after her second concussion, she briefly experienced some visual disturbance, and some minor headaches. In the days following the injury, she had applied purple eye shadow to the periorbital area, and developed a way to keep her eye half-closed whenever being observed by others, a practice she sustained for months. She described going to “tons of eye doctors,” that there were “no findings,” and that she “knew there was nothing wrong.” She noted that as a youngster playing sports, she was known by her parents as a “drama queen” and would often enjoy the attention she got following an injury.

It occurred to her by degrees that these concussive injuries were a mechanism to make a “graceful exit” from soccer and the attendant stress she had been experiencing on the travel squad. Not only was the time commitment intense, but also prior to joining the travel soccer team, a move her father heartily endorsed, the patient had played for a low-key, local soccer club team where she was among friends, and had a coach who had a relaxed, nurturing style.

On the travel team, the patient reported that she had only a few acquaintances, and that she experienced the coach as harsh and punitive. She recalls feeling “happy” after she suffered the second concussion.

The patient is the youngest of two children, the daughter of high-powered and successful parents; her father is an attorney and her mother is an independent business woman. Her father had been raised with the ethos of “tough love,” the son of an alcohol-dependent father, whereas her mother’s father was a career military man.

Per the clinician’s observation, the patient’s mother had an obsessive-compulsive personality organization, and was a self-reported competitive runner who had suffered with anorexia nervosa that had been diagnosed and treated while in high school.

The mother also reported she had experienced postpartum depression following the birth of the patient. The mother continues to exercise compulsively, to restrict her food intake, and is “still very weight conscious.”

Although the patient’s older brother did wrestle in high school...
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(take closely), he had been “chubby” in middle school, and did not identify primarily as an athlete. The patient was the designated family athlete, and she was very aware of the approval she got from her father for her success in soccer.

The patient was fearful of sharing her elaborate deception with her parents. She agreed to convey the information in a joint session with them. Both her parents were very understanding and immediately expressed remorse and guilt that they had not been more attentive to their daughter’s unhappiness with her soccer experience, noting that they had found it difficult to know how far to push her.

**DIAGNOSIS**

Major Depression, Adjustment Disorder with Anxious Mood

The family session was a watershed for the patient. Once she knew she had her parent’s support and empathy, she reported feeling a great sense of relief. Soccer was not the problem; it was the travel team and its coach specifically. A psychoeducational approach to her depression was taken with her parents.

The patient was referred to a neurologist who confirmed that each of her concussions had been relatively minor, and that sufficient time had elapsed symptom-free, the patient was eligible to return to soccer. Repeat ImPACT testing supported this assertion, and the patient was given the green light to rejoin her high school soccer team, although she made an independent decision to refrain from heading the ball.

For her anxiety, the patient was treated with a combination of low-dose, short-term clonazepam and sertraline, to good effect. The patient made a successful return to playing high school soccer, earning a position on the varsity team; her transition into her junior year was reportedly smooth, both socially and academically.

**DISCUSSION**

One can analyze the etiology of this young patient’s depression and anxiety symptoms using a biopsychosocial approach. Biologically, she appeared genetically predisposed to depression, and arguably had some postconcussive mood symptoms. Within her family dynamic, there was pressure to perform athletically, and she felt she had no way out of her circumstances playing for this high-pressure team with a coach with whom she had a difficult time.

She was also experiencing some phase-of-life stressors, including the imminent departure of her only sibling and closest confidant; the recent break-up with her boyfriend; and the approach of her anticipated stressful junior year.

Although she had had some expected sequelae due to her concussive injuries, including mood symptoms such as irritability, the extent of her mood and anxiety symptoms appeared in retrospect to have more to do with having deceived her parents, the school, and her soccer coach.

It is noteworthy that there are some acknowledged limitations to ImPACT testing; the sensitivity is poor and reliability low. It was necessary to understand the dynamics that supported this ruse in order to more objectively evaluate the patient from a neuropsychiatric perspective, which ultimately enabled her to return to play. This occurred through a thorough family evaluation and history, and the establishment of a therapeutic bond and trust.

**REFERENCES**