PTSD with Secondary Psychotic Features: A Distinct Disorder

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Introduction
Trauma contributes to various psychopathological syndromes that have historically been part of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM). Following a life-threatening trauma, an individual may develop signs and symptoms of Post-traumatic stress disorder (PTSD). At times of acute stress, patients with underlying PTSD can experience worsening of symptoms and severe distress resulting in psychosis. Investigators have proposed a separate variant of PTSD distinct from other disorders with psychosis, PTSD with secondary psychotic features (PTSD-SP) [1,2,3,4,5]. These patients have a severe form of PTSD, as evidenced by a higher total number of PTSD symptoms, levels of comorbidity, and distress [6].

Diagnostic Criteria, adapted from the DSM-5TM

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<td><strong>Posttraumatic Stress Disorder</strong></td>
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<td><strong>A. Exposure to actual or threatened death, serious injury, or sexual violence</strong></td>
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<td><strong>B. Presence of intrusive symptoms, avoidance symptoms, negative alterations in cognition and mood, and hyperarousal symptoms</strong></td>
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Specify if: With secondary psychotic features: Delusions and/or hallucinations are present. The content of all delusions and hallucinations are rooted in themes of the trauma leading to PTSD syndrome.

Research Considerations
Male veterans are overrepresented in studies of PTSD-SP [7]. For more generalizable data, future studies should focus on female veterans and patients who have experienced civilian traumas, as highlighted in this case series.

Case Descriptions

**Case 1**
A female veteran in her thirties with a history of sexual abuse in childhood, anxious attachment and a history of sexual trauma presented for treatment for depression and PTSD. Her symptoms were well managed while she was medication adhered, engaged in trauma-focused therapy, and individual therapy. When her estranged mother died unexpectedly from cancer, she experienced worsening of PTSD symptoms including paranoia and flashbacks, and became fixated on persecutions against her father, eventually believing that he killed her mother. She was taken to the ED where she was noted to have some sun-downing agitation and she was concerned that someone had been killed outside her bedroom window. She was disoriented throughout admission, although attention, concentration, and abstraction were intact.

**Case 2**
An African American male veteran in his forties was seen in the outpatient clinic for treatment of depression, PTSD and agoraphobia. He relayed a history of combat trauma, however, was also deeply affected by ongoing racial tensions in the United States ever since he was pulled over by a Caucasian policeman and asked to step out of his car, which made him fear for his life. His depression and PTSD symptoms were largely untreated until he was thirty. At baseline, he had auditory hallucinations which were a running negative commentary, although they were less bothersome to him when treated with Haldol.

**Case 3**
A sixty-seven-year-old female was admitted to the psychiatric hospital for psychotic and bizarre behavior. Several years prior, she was working as a bank-teller when the bank was robbed. She subsequently took one year off to recover from the stress of witnessing the robbery. In the days preceding hospitalization, her family reported that at home she was not sleeping for several days and hearing the neighbors talking about breaking into her house to harm her grandchildren. At the hospital, she was noted to have some sun-downing agitation and she was concerned that her estranged mother had been killed outside her bedroom window. She was disoriented throughout admission, although attention, concentration, and abstraction were intact.

Neurobiological Findings in PTSD-SP
- Elevated levels of dopamine beta-hydroxylase have been found in patients with PTSD-SP compared to those with PTSD without SP, and control cohorts [10].
- It is hypothesized that when patients with Schizophrenia have smooth pursuit eye movement (SPEM) deficits at lower velocities, patients with PTSD-SP have impaired SPEM at higher velocities [11]. This inability to track perceived risk of harm may contribute to the delusional fear that patients with PTSD-SP experience.
- The effects of stress on the hypothalamic axis are well understood. Patients with PTSD-SP have been found to have significantly elevated corticotrophin releasing hormone in cerebrospinal fluid samples compared to those with PTSD without SP and control cohorts [12].

References