Case report

Acute transient psychotic disorder precipitated by Brexit vote

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SUMMARY

A man in his 40s was brought to the accident and emergency department in an acute psychotic state, 3 weeks after the European Union referendum results in the UK were declared. His mental health had deteriorated rapidly following the announcement of the results, with significant concerns about Brexit. He presented as agitated, confused and thought disordered. He had auditory hallucinations, and paranoid, referential, misidentification and bizarre delusions. He recovered completely within 2 weeks after a brief admission and treatment with olanzapine. He had experienced a similar episode of much less severity 13 years previously after major work related stress which resolved completely within a few days. He was experiencing stress related to work and family prior to the current episode which could potentially have been a contributory factor. Political events can act as major psychological stressors and have a significant impact on the mental health of people, especially those with a predisposition to develop mental illness.

BACKGROUND

Acute and transient psychotic disorder (ATPD) is characterised by an acute onset, within 2 weeks, and complete recovery within 3 months.¹ The conceptualisation of ATPD as a separate diagnostic entity in the 10th International Classification of Mental and Behavioural Disorders (ICD-10) was influenced by descriptions of psychoses, including Bouffée délirante and cycloid psychoses which did not fit within the Kraepelinian dichotomy of dementia praecox and manic depressive illness, also referred to as the third psychosis.^{2,3} ATPD is more likely to be preceded by stressful life events occurring within 2 weeks of the onset of illness.

Political events can be a source of significant psychological stress. Surveys in the USA following the 2016 presidential elections revealed that 66% identified the future of the country as a significant source of stress and 57% felt stressed by the existing political climate.⁴ Similar surveys in the UK reported that Brexit—the process of the UK leaving the European Union (EU) following the June 2016 referendum—was one of the major sources of anxiety among the young.⁵ Post-Brexit, the prescriptions of antidepressant medications continued to increase, although at a slower pace, compared with other prescribed medications which showed a decrease.⁶ Concerns have been expressed about the potential negative impact of Brexit on the mental health of

Black and Minority Ethnic people.⁷ Here, I report the first case of ATPD precipitated by Brexit.

CASE PRESENTATION

A man in his 40s was brought to the accident and emergency department by paramedics in an acute psychotic state, 3 weeks after the EU referendum results in the UK. His wife reported that since the EU referendum results were declared on 24 June 2016, he started spending more time putting his thoughts across on social media. He found it difficult to reconcile with the political events happening around him. He became increasingly worried about racial incidents. His sleep deteriorated. He saw his doctor who prescribed mirtazapine 15 mg and zopiclone 7.5 mg at night, but his mental health continued to deteriorate. He became paranoid that people were spying on him. He developed misidentification delusions—he believed that two women he saw were the same person. He became increasingly agitated at home and started throwing items around, leading to the attendance at the accident and emergency department.

At the hospital he was agitated, perplexed and confused, attempting to dig the floor with his hands to 'burrow' through the floor to 'get the hell out of this place'. He was thought disordered—knight's move thinking. He was suffering from paranoid (believed people were spying on him and planning to kill him), referential (believed that talks on radio and TV were targeted at him), and bizarre (believed the two ends of a mathematical equation emerged out of the two poles of earth rotating on its axis) delusions. He was hearing voices talking about him. He spontaneously mentioned that if he killed himself that would prove his love for his wife. He lacked insight into his mental state. He did not have the capacity to make decisions about his care.

Later during his stay on the psychiatric ward, he reported that he felt ashamed to be British. He described his family as 'multicultural'. He said "I was looking at the electoral map of voting for the EU. I am in a constituency that reflects an opinion that is not for me". He reported losing a case in a small claims court recently related to his work, but he and his wife reported that it was a small amount of money and he did not seem particularly worried about it. He also reported family pressures having to look after his children.

He had a previous history of a similar episode, although of less severity, following work related stress, 13 years previously. He recovered completely within few days. He was prescribed olanzapine for

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about 3 weeks and was followed-up by a community mental health team for a few months. He did not have a history of alcohol or substance abuse. He had no history of significant physical health issues, except for mildly impaired hearing in the right ear (he used a hearing aid). There was no family history of mental health problems.

INVESTIGATIONS

Physical and neurological examinations were normal. All routine blood tests, including full blood count, urea and electrolytes, liver function tests, haemoglobin A1c, thyroid function tests, vitamin B12, folate, and D levels, and an ECG were normal.

DIFFERENTIAL DIAGNOSIS

Based on the clinical presentation, investigations and outcome, he was diagnosed with acute schizophrenia-like psychotic disorder (F23.2), a subcategory of ATPD in the ICD-10. The patient's hearing impairment in the right ear was longstanding and did not change around the onset of the psychotic episode or afterwards, and hence did not appear to have any association with the psychotic episode.

TREATMENT

He was admitted to a psychiatric ward under section 2 of the Mental Health Act (MHA 1987). Because of high levels of agitation, he required rapid tranquilisation with intramuscular lorazepam on the ward initially. He was commenced on olanzapine 10 mg at night, which was reduced to 7.5 mg because of excessive sedation few days later.

OUTCOME AND FOLLOW-UP

He recovered completely and was discharged 2 weeks later. He was followed-up in the community, and olanzapine was gradually reduced and discontinued. He remained well up to the last contact with him in June 2019.

DISCUSSION

ATPDs have an annual incidence rate of 3.9–9.6 per 100 000 population.⁸ Relapses are common, with rates reported ranging from 10% to 50%; most relapses occur within the first year.⁹ The stability of diagnosis over time ranges from 34% to 54%, with the most common diagnostic conversions being in the schizophrenia spectrum group. An early age at onset, male gender and longer first admission to hospital increase the risk of future development of schizophrenia.¹⁰ Preceding stress is reported in 30–50% of patients diagnosed with ATPD.¹¹ Although there is no reported case of ATPD triggered by Brexit, a case of brief psychotic disorder precipitated by stress associated with the general election results in the USA has been reported.¹² Although Brexit appears to be the primary stressor because of the temporal proximity, the patient's reported personal significance of the event, the nature of the evolution of the psychotic episode and the content of the psychopathology, it is conceivable that additional work and family related stresses may have contributed to the ATPD.

In terms of psychopathology, delusions are seen with equal frequency in patients with ATPD and schizophrenia but the content of the delusions is changeable over the course of ATPD, unlike in our patient. Hallucinations are observed less frequently in ATPD.¹³ The primary biological pathway mediating the response to psychological or physiological stress is the hypothalamic–pituitary–adrenal axis which regulates the production of the stress hormone, cortisol. Dysregulation of the

hypothalamic–pituitary–adrenal axis has been documented in response to stress and has been proposed to lead to increased striatal dopamine release observed in response to stress through sensitisation of dopaminergic projections.^{14 15} Genetic predispositions may modulate the role of stress in the development of psychosis. Polymorphisms of the catechol-O-methyl transferase gene, that encodes the enzyme critical for dopamine breakdown, and brain derived neurotrophic factor gene, that encodes a neurotrophin promoting growth and differentiation of developing neurons and their survival in response to stress, have been shown to differentially interact with stress in the development of psychosis.^{14 16} Potential cognitive, behavioural and emotional

Patient's perspective

The best way that I can describe my experiences of psychosis are as intense periods of accelerated thinking, of being distracted and consumed by my own thoughts, and of a series of theatrical episodes of which I am at the centre, sometimes featuring friends or relatives from my own past.

Some of the scenarios occurred just as daydreams which dominated my concentration and other times the situations were brought to life through hallucinations or by me misinterpreting what I was seeing or hearing. Although each scenario seemed random, most of them were connected somehow in my own mind and all I believed to be real.

In one scenario I remember lying on my bed on the top floor of our house with my arms and legs spread-eagled. I was convinced that one of my wife's relatives was going to shoot a missile at me using heat seeking technology and I wanted to provide him with the best possible target.

That evening I was paralysed by the choice of which bedtime story I should read to one of my children because in my mind there was a right book and a wrong book depending on whether I would die that night or a subsequent night.

This was in the summer of 2016 and, as well as my own anxieties about Brexit, it was also a time when a friend of mine was experiencing immense anxiety about what was happening around him in the US and we were talking together on social media about racial issues.

I remember having a desire to see Facebook providing better tools for people in this plight, so I set about designing an algorithm that would connect users' emojis to their own cultural experience. The idea got as far as a complex 'join the dots' diagram on a piece of paper. I think my wife destroyed it because of the extent to which it was preoccupying my mind and exacerbating my psychotic state.

At work I was in the middle of an installation and I remember hearing the TV on in the background. I started to believe that I was under surveillance. I remember my ears pricking up when a voice said, "he's very observant"!

I remember driving and hearing the radio presenters talking about me as if they could see me and knew what I was thinking. Many times, during these scenarios, I felt quite petrified. At one point when I was being held in a hospital interview room, I believed that we were in the basement of a tower block that was going to be pulled down in a 9/11 style attack. I spent the entire time studying the walls and exit doors and watching people through the narrow window in the fire door to try and work out whether they were entering or evacuating the building and if there was any hope of escape.

Learning points

- ▶ Acute and transient psychotic disorders present as brief episodes of psychosis often precipitated by stressful life events.
- ▶ Political events can act as significant psychological stressors and impact on mental health, especially in people with predisposing factors.
- ▶ Identifying early warning signs of acute and transient psychotic disorders, especially during stressful situations, can lead to early treatment and quick recovery, which is associated with a better long term prognosis.

mechanisms leading from stress/trauma to psychotic phenomenology have been proposed.¹⁷

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