

The range of 'medical' psychosis in two case reports

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Introduction

Patients who present to physicians with altered mental health and behaviour may prematurely be diagnosed to have psychiatric illness. Psychiatric manifestations commonly accompany acute medical illnesses. As a rule of thumb, organic causes need to be ruled out before making a psychiatric diagnosis. A delay in arriving at a diagnosis could lead to prolonged psychiatric symptoms and unnecessary use of psychotropic medications. Prognosis and recovery will vary depending on the type of accompanying medical illness. Below, two cases are presented which varied significantly in terms of the sequelae.

Case 1

A female patient in her late 20's was referred from primary care as she reported a sudden onset of "hearing voices". The patient disclosed that she was bullied at work 6 months prior to this episode which resulted in change of job role and bullying has been dealt with. She described that the voices were talking about world politics and wanted her join MI5. She also believed that there were evil scientists who could read her mind through telepathy and felt that there were cameras and bugs planted in her house by a plumber. She became suspicious that her neighbours were spying on her. Her sleep was disturbed and she heard a 'tick-tock' sound. This led to her checking pipes and walls to find the origin of the sounds. She believed that people were throwing things on to her bed and became very distressed - to the extent that the police were called on many occasions. She believed that people had been using telepathy on her and that aliens were invading the world. She was so distressed that she attempted to end her life by drinking bleach on one occasion and trying to cut her wrist on another.

There is no previous history of mental illness and no mental illness in the family.

Her medical history revealed that she had had mastoid surgery four years ago. Three weeks prior to the psychotic episode noted above, she had an ear infection with discharge from her ear. She presented to the general practitioner with psychotic

symptoms at the same time. A CT scan of the brain was normal. A 2 week course of antibiotics in the form of Co-amoxiclav was given by the general practitioner. Her psychiatric manifestation resolved completely on follow up at two months without any psychotropics or Benzodiazepines. The patient was then kept under 'wait and watch' for six months in order to monitor any re-emergence of psychotic symptoms. She did not report any further episodes of ear infections during this period of follow up. Her diagnosis was Diseases of middle ear and mastoid (H65-H75).

Case 2

A 31 year old lady was referred to secondary mental health services from a Neurology team, presenting with psychotic symptoms following a viral encephalitis infection. A diagnosis of Herpes Simplex viral (HSV) encephalitis was confirmed by lumbar puncture and a CT scan by the Neurology team. She had made a gradual recovery from the encephalitis over a period of one month. She developed psychotic symptoms 2 weeks later, where she believed that doctors were trying to kill her and that she had been raped, with no evidence that this had occurred at any time. Her distress worsened which led to her informal admission to an inpatient mental health unit. A close assessment on the ward showed her to display an intermittent picture of worsening gait. A neuropsychiatry assessment confirmed that this lady had acquired brain injury following Herpes encephalitis. Single photon emission computed tomography (SPECT) showed extensive brain injury consistent with HSV. This lady presented with several acute episodes of psychosis where she complained of hearing voices and believed that people were trying to harm her. Her mood was labile and variably responsive to Olanzapine initially with a control of her psychotic symptoms as well as mood behaviour. She was diagnosed as suffering from Organic Delusional (Schizophrenia-like) Disorder (ICD 10 F06.2), with a picture of Paranoid Schizophrenia secondary to viral encephalitis. A maternal aunt was said to have suffered from Schizophrenia. Later on she had frequent relapses of psychosis and Quetiapine was initiated. As her symptoms did not respond to two different anti-psychotics, she was started on Clozapine which gave her reasonable

stability. However, she still needs support while walking and has been transferred to a suitable neuropsychiatric rehabilitation placement to maximise her independence and manage her ongoing needs.

Discussion

The two cases above display infective neurological diseases characterised by psychiatric presentations and greatly differing prognosis. The first case was an example of a chronic recurrent ear infection which was likely to have involved inner ear, mastoid or temporal lobe but has subsided without any long term sequelae. This was promptly treated with antibiotics at an early stage with complete recovery and there was no evidence of brain injury on imaging. The psychiatric manifestation was dramatically acute in this case and this could be partly attributable to stress at work. In particular there was neither previous history of mental illness nor a family history of psychiatric disorders.

In the second case, there was evidence of significant brain injury resulting in both physical and psychiatric sequelae following herpes encephalitis. Furthermore, this patient has a family history of schizophrenia which might have influenced the manifestation of the Mental Disorder.

There is significant evidence to suggest that childhood neurological viral infections increase the risk of psychotic illness¹. In both cases there was no suggestion of such illness in the childhood history. A recent study investigated whether HSV1 exposure was associated with structural brain abnormalities in individuals who, because of genetic or other factors, were deemed at high risk of developing psychosis. The results suggested that a history of HSV1 infection is associated with volumetric gray matter reductions in individuals at high risk for developing psychosis². In our second case, SPECT imaging confirmed grey matter loss and with the strong genetic risk would have led to the psychiatric illness.

The relationship between bacterial infections and psychotic illness is less well understood. Schizophrenic illnesses are often multifactorial in origin following a complex interplay between genetic and environmental factors such as infections. While

there are various reports of Neurosyphilis, Mycoplasma Pneumoniae and Cryptococcal meningitis causing psychotic illness, specific bacteria could not be isolated in the first case presented³⁻⁷. The improvement with antibiotics simply suggests that this could be a bacterial infection.

In summary, these cases clearly show the importance of identifying and treating medical illness presenting with psychiatric symptoms at the earliest to prevent long term complications.

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Competing Interests

None

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