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Treating Schizophrenia in Continuum to Obsession Overvalued Ideas and Delusion: A Case Report

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Abstract
A 20 yrs/old female Chinese student presented with the diagnosis of schizophrenia. She was on her ongoing treatment for more than two and half years before she presented to our center. After revision of treatment regimen in our center, it became inconclusive whether the initial picture was of obsession, overvalued ideas or delusion. Her obsessive symptoms within schizophrenia spectrum, however, suggested towards a distinct subgroup with better outcome. Her auditory hallucination and delusion remitted and she continues on her medical management from the out-patient clinic.
Keywords: Schizophrenia, obsession, overvalued ideas, delusion

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Introduction

The co-occurrence of obsession overvalued ideas and delusion is being discussed in schizophrenia literature since the early 20th century and has received a varied amount of attention [1, 2]. Several studies have demonstrated an increased prevalence rate of obsessive-compulsive symptoms (OCS) and obsessive-compulsive disorder (OCD) in patients with schizophrenia [3]. It is estimated that around 7.8 – 46.6% of schizophrenia patients also present with OCS [4]. OCD and OCS are both found to be more prevalent among schizophrenia patient compared to the general population with the rate varying from 10% - 64% for OCS and 7.8% - 31.7% for OCD with an increased past suicide attempts, positive symptoms of schizophrenia and symptoms of depression [5]. Some authors stress the literature arguing that the high prevalence rate of OCS and OCD in the recent literature compared to the low reported rate in the past could be the result of the dominance of Freudian psychoanalysis, where OCS and OCD were considered as the clinical expression of defense-mechanism against psychosis [3]. Although, past literature suggests that the OCS being a clinical expression of defense mechanism against psychosis could represent a good indicator of prognosis; however, current literature contrasts the finding suggesting that the schizophrenia patients with OCS are often found to have more clinical disturbances with increased social isolation, lower quality of life, increased disability and more resistant to treatment than the schizophrenia patients without concomitant OCS [4, 6, 7].

The clinical overlap between schizophrenia and OCD patients can be explained in terms of thought disorder involving obsessions, overvalued ideas, and delusion in a continuum. Overvalued ideas are the beliefs falling in between obsession and delusions, that are stronger that obsession, however, weaker than the delusions [1]. In terms of phenomenology, delusion is explained as a belief that is held true by the patient with extraordinary conviction, that is unshakeable, and with incomparable subjective certainty that is in contrast to individual's socio-cultural background [3]. Although obsessive thoughts are often related to ideas about contamination, symmetry and/or aggressive impulses and are often identified by individual as irrational thoughts and product of their own mind; certain patients, though, tend to perceive their obsessive symptom as rational and do not resist it. Hence the existing literature has defined these sort of patients to be diagnosed as "schizo-obsessive" disorder and these sort of symptoms are classified as overvalued ideas [9]. After reviewing several kinds of literature in the field, it can be argued that the OCD and psychosis may coexist and may be unrelated to each other, or an obsession may become delusion or vice versa, and even obsessions may trigger a psychotic episode [10].

Obsessive to the psychotic dimension of symptoms in schizophrenia may co-exist and not related or may trigger and transform inside the spectrum. It has been estimated that a significant proportion of adult patients with schizophrenia also meet the DSM-IV criteria for OCD [11]. It has been demonstrated that the fixity and bizarreness of beliefs in OCD patient can occur in a continuum from none to the delusional intensity, and it might fluctuate within-subject differences [12]. Deregulation of neurotransmitter systems in another hand of common interacting serotonin and dopamine neurotransmitter systems and similar involved functional neuronal circuits i.e. frontal cortex and basal ganglia hints towards the possibility that the obsessive symptoms within schizophrenia spectrum disorder can be a part of the natural course of disease in a subset of schizophrenia patients [4]. Similarly, it has also been reported that a subtype of OCD patients accompanying overvalued ideas has been found to be related with cognitive dysfunction sharing similar characteristics to schizophrenia [1]. The frequent co-occurrence of OCS and overvalued ideas within the course of schizophrenia spectrum disorder and its relative impact on the cognitive domain and overall functional outcome suggests towards a clinically meaningful dimension of psychopathology in schizophrenia spectrum disorder with distinct clinical and neurobiological characteristics and varied treatment response and prognosis [6, 8].

Hence, after evidencing the need for additional research to delineate the possible etiology, neurobiology, psychopathology, and treatment response in a subset of schizophrenia patient with concomitant OCS which is deemed in the literature, this case study is presented here. And since the growing literature in this regard published in English do not mention any Chinese patients; this case study further highlights the novelty providing the first evidence to suggest that there exist a similar trend inside mainland China in Han population as well. We also aimed to visualize the effectiveness of Fluoxetine adjunctive therapy in conjunction with ongoing antipsychotic medication in a schizo-obsessive subtype of schizophrenia.

Case Presentation

A 20 yrs old Han Chinese adolescent female student, the only child in her family was under ongoing treatment from Renmin Hospital of Wuhan University, Wuhan, China with the diagnosis of schizophrenia. She belongs to the good socio-economic class family as both the parents were educated and holding the average level of occupation. No history of any serious childhood traumatic experience or any familial risk factors including first-degree relatives was provided by the patient. She was grown up with her grandparents with unaffected developmental milestones, ambitious and perfectionist lifestyle was provided to her in early childhood and history suggests that she was supported by her parents for all her ideas regardless of its intensity.

Her first episode of the psychotic feature was noticed five years back on 2011. Impatience owing to a delayed response to treatment and failure to achieve expected improvement at the local center brought her to our clinical attention. She was maintained under Ziprasidone when presented to our center that was initially changed to oral Paliperidone and adjusted as per the clinical benefit. Six months after ongoing treatment with Paliperidone, her obsessive symptoms became distinct and Fluoxetine treatment in conjunction to antipsychotic was considered. Her symptoms improved dramatically and she gained significant insight into her condition. Since, being a college student, concerning her convenience, oral Paliperidone was switched to injectable Paliperidone once three-month dosing and was advised to return to her school. During her maintenance treatment with injectable Paliperidone, she presented again to our center with an acute exacerbation of symptoms owing to her increased stress related to academic achievement at the school. Increasing the dose of antipsychotic was advised, however, she wanted to continue the same dose of injectable Paliperidone. Hence oral Risperidone syrup was added to her treatment regimen and her symptoms started to improve again. And after months of stable symptomatology, her Risperidone treatment was withdrawn and was advised to continue on injectable Paliperidone and oral Fluoxetine as maintenance therapy. She continues to follow up in out-patient clinic.

Discussion

Although, it looks like a simple case, the intriguing factor herein is related to the phenomenology of disease presentation. Initially, she presented with firm and fixed beliefs of her own that were unshakable for the change giving a clear clinical impression of delusion fulfilling all the criteria. After initiation of changed treatment regimen in our center, her obsessive symptoms became evident suggesting overvalued ideas. And after multiple interviews, it still remained inconclusive whether the initial picture

was of delusion, obsession or overvalued ideas. Her symptoms responding well to the increased antipsychotic treatment and relapse of the symptoms with decreased dose suggests towards her underlying psychotic dimension. However, the need of additional Fluoxetine treatment to her ongoing antipsychotic medication and better improvement of symptoms with added regimen suggests towards a hint that a different subtype of schizophrenia as proposed 'schizo-obsessive' disorder do exist and have a distinct response to the pharmacotherapy [13].

Studies that have focused on the comparison of patients with schizophrenia and OCD have demonstrated the similarities of symptoms, the overlap of symptoms and differences in the symptom presentation. The overlapping of symptoms and symptom fluctuation within the disease spectrum can be explained in terms of thought disorder involving obsession overvalued ideas and delusion in a continuum basis where symptoms might fluctuate from obsessive to delusional intensity [14]. Since, it is evidenced that some of the OCD patients with obsessive-compulsive symptoms resemble psychosis, and are often misdiagnosed as delusion and hallucination, a special subcategory of OCD with "poor insight" have been separated in DSM diagnostic manual, however, when it is supposed to be applied clinically, the presentation remains more and more debatable [2]. In DSM-IV classification system, OCD with "poor insight" is explained as an anxiety disorder; however, some authors though tend to stress towards the delusional intensity of symptom presentation in OCD patients with "poor insight" emphasizing the psychotic dimension and tend to label it as a "Schizo-obsessive subtype", "Schizo-obsessive Disorder" or an "Obsessive Psychosis" [1, 13].

The complexities in diagnosis posed by these sorts of similarities and overlapping symptoms are not unique to OCD and schizophrenia patient alone. Similar diagnostic debates can be observed in anorexia nervosa and body dysmorphic disorder as well, where a range of subjective beliefs ranging from obsession at one end to delusion at the other can be observed. For example, patient with anorexia nervosa might believe that they are fat with an absolute certainty despite provided evidence to suggest that they are not; however, they are regarded as overvalued ideas instead of delusion. That might be the reason why they are classified separately in DSM diagnostic criteria as body-dysmorphic disorder and delusional disorder with somatic type [12].

Selective serotonin-reuptake inhibitors (SSRIs) and cognitive behavior therapy are the treatment options that shows greater efficacy in obsessive and compulsive symptoms in OCD patients when used alone or in combination, and it is evidenced that the presence of overvalued ideas in the OCD patient is theoretically linked to the poorer outcome [2, 15]. Hence, in this regard, the case presented here responding well to Fluoxetine augmented therapy in conjunction with antipsychotic medication points towards the possibility that SSRIs such as Fluoxetine augmented therapy could be the treatment of choice in a patient with overvalued ideas in schizophrenia patient. However, a single case study is not enough to make such consideration and further studies with bigger sample size is needed.

Conclusion

The obsessive compulsive disorder and schizophrenia can be regarded as spectrum disorders [9]. In the meantime, gross observation of patient performance on different cognitive domains and their relation corresponding to insular function such as bodily self-awareness, sense of body ownership, and other emotional feelings such as uncertainty and hallucinating, suggests that anterior insula plays a vital role in psychopathology [16]. In recent days, non-invasive neurostimulation techniques such as repetitive transcranial magnetic stimulation (rTMS) have shown to improve cognitive functions in various studies, however, insular cortex given its sequestrated location is considered to be beyond the reach of non-invasive neurostimulation techniques such as rTMS [17]. In this regard, apart from neurostimulation approaches, certain cognitive approaches have shown to exert a specific influence on the Salience Network including anterior insula [18]. Hence, it can be argued that considering these techniques, if available, might have an added benefit in restoring dysconnectivity and plasticity of the brain networks ultimately improving functional ability.

Conflict of interest

Both authors have disclosed no conflict of interest.

Consent

A written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review by the Editor-in-chief of this journal.

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