Volume 3 Issue 8 August 2020

# Schizo-obsessive Disorder - Diagnostic and Therapeutic Difficulties - Case Report

# Anna Urbańska\*, Aneta Perzyńska-Starkiewicz, Łukasz Proć, Agnieszka Lis, Aleksandra Kordyga-Proć and Marcin Olajossy

The Second Clinic of Psychiatry and Psychiatric Rehabilitation of the Medical University, Lublin, Poland

\*Corresponding Author: Anna Urbańska, The Second Clinic of Psychiatry and Psychiatric Rehabilitation of the Medical University, Lublin, Poland. Received: July 18, 2020 Published: July 30, 2020 © All rights are reserved by Anna Urbańska., *et al.* 

## Abstract

A case of patient with schizo-obsessive disorder is presented. Schizo-obsessive disorder causes many diagnostic difficulties. The patients may not respond to the basic treatment regimens for schizophrenia or schizo-affective disorder and they may need polypharmacotherapy more often than usual.

Keywords: Schizophrenia; Obsessive-compulsive Disorder; Schizo-obsessions; Schizo-obsessive Disorder; Case History; Case Report

#### Abbreviations

CNS: Central Nervous System; CT: Computer Tomography; ECT: Electroconvulsive Therapy; EEG: Electroencephalogram; MINI Scale: Mini International Neuropsychiatric Interview; OCD: Obsessive-compulsive Disorder.

#### Introduction

The occurrence of symptoms such as intrusive thoughts and activities in the case of a patient diagnosed with schizophrenia totals (depending on sources) 15 - 40%, [1-4] which is a significantly higher percentage compared with the general population [5,6]. A rich spectrum of symptoms, difficulties in distinguishing between psychotic symptoms and symptoms that meet the criteria for obsessive compulsive disorder often result in diagnostic vagueness.

However, the place in the classification of schizo-obsessive disorder is still a matter of speculation. Older reports suggest that schizo-obsessive disorder may be considered as an independent clinical unit with a separate psychopathological profile [7,9,10]. Nevertheless, this statement has not been confirmed by the results of more recent studies [5,8].

Schizo-obsessive disorder is associated with suffering and a significant deterioration in general, social, professional functioning and worse overall prognosis. Patients with schizophrenia and comorbid obsessive-compulsive disorder show a greater severity of negative symptoms, depressive disorders, cognitive deficits and much more often exhibit suicidal behaviors in comparison with patients diagnosed with schizophrenia without comorbid OCD [11-15,21]. Due to the specificity of the disorders, pharmacotherapy in the case of patients diagnosed with schizo-obsessive disorder is less effective. In effect, resistance to treatment is observed more often, the use of polypharmacotherapy is more frequent and the effectiveness of individual drugs is assessed differently [4,17-20].

#### **Case Report**

We present a case report of a patient diagnosed with schizoaffective disorder. In the course of the disease also obsessive-compulsive disorder symptoms were observed.

The patient, 37 years old, was referred to the Mental Health Clinic due to the gradual deterioration of his mental state and functioning for several months despite the regular use of pharmacological treatment. During this time, the patient experienced low mood, anhedonia and anergy.

The patient lay in bed for most of the time, spoke about many resignation thoughts, avoided interpersonal contacts, interpreted current events mostly in a negative way. The intensity of intrusive thoughts and activities increased, in particular, those related to his semen. The patient had the impression that everything around him was contaminated by his sperm, which forced him to wash his hands and objects perpetually. He was convinced that a woman who touched objects "contaminated by sperm" would become pregnant

Citation: Anna Urbańska., et al. "Schizo-obsessive Disorder - Diagnostic and Therapeutic Difficulties - Case Report". Acta Scientific Neurology 3.8 (2020): 56-61.

with him. Due to his association of soap and shampoo with semen, he had to use his mother's help while bathing. He also reported the occurrence of compulsions in the form of repeated flushing in the toilet, lifting and washing glasses or spoons, checking doors and other objects (proper tightening of safety valves).

After admission to our clinic, the patient had correct auto and allopsychic orientation, he was in depressive mood. He showed flat affect and lower psychomotor drive but still he could easily establish logical verbal contact. He confirmed the occurrence of the above mentioned obsessions, mainly those related to semen, other people and objects. He did not spontaneously express the delusional content. He denied hallucinations. At admission, suicidal risk was assessed as low (on a MINI scale - 1 point). Although, the patient confirmed the occurrence of resignation thoughts. He was admitted to the hospital with the initial diagnosis: Observation of the mental state for obsessive compulsive disorder/Schizoaffective Disorder (Diagnosis from the referring physician: Schizoobsessive disorder/Schizophrenia/Schizoaffective disorder).

The patient was a childless bachelor who lived with his mother. He achieved secondary education (machine construction technician). He was professionally active until 2016 (as a worker in cleaning company at the power plant). He ceased his work due to the increase in obsessive-compulsive symptoms. Since 2017 the patient had been receiving a pension granted to him on psychiatric grounds. The patient had not been legally punished. As it followed from the interview, both of his sisters were treated as outpatients due to depression, while his father abused alcohol.

According to the patient's report, there had been no physical aggression and violence in the family. In addition, the following information was obtained: a single head injury - without loss of consciousness, epileptic seizures negated. He mentioned asthma among comorbid somatic diseases in his childhood. No somatic diseases were being treated at that time. The patient smoked about 20 cigarettes a day. He denied the use of psychoactive substances, but confirmed the use of alcohol in the past (continuous drinking for several days). At that time, he denied taking excessive amounts of alcohol. Additionally, history of drug allergy seemed to be important. The patient combined the use of risperidone and clomipramine with the appearance of a rash. Also drug-induced liver injury had been recognized in the past after quetiapine and fluvoxamine treatment.

Patient's mother and sister claimed that he had been a quiet and peaceful child. His results at school were average, but he was promoted from one class to another without significant difficulties. According to his interests, he chose the secondary school profile (mechanical technical college). Then, he began studying administration. After half a year, he discontinued his education ("I couldn't cope with it") and started working in a cleaning company at the power plant (in 2004).

The patient had a good relationship with his mother, whom he described as a good and loving woman. The patient's father died in 2003. Previously, he had been on a rehab treatment twice due to his alcohol abuse. According to the patient, in the state of intoxication, he was not aggressive and did not use physical violence. The patient had a good relationship with his two sisters (3 and 2 years older).

The patient had difficulties in establishing social relations. He mentioned that he felt best in a smaller group of people. He had only several colleagues. He also reported that at the age of 20-21, he was in one short romantic relationship, which he ended himself. ("It wasn't a girl for me. How to say it … She was just crazy.").

Mental health problems appeared around 2004. During this period, the first intrusive thoughts and compulsions regarding the urge to check occurred. The patient started outpatient psychiatric treatment in 2005. Since then, he has been hospitalized twice in the psychiatric ward of the Hospital in Sandomierz, Poland (in 2016 and 2017).

The first contact with psychiatrist took place in 2005. Then the OCD symptoms exacerbated and depressive symptoms appeared, mainly: lowered mood, decreased activity, yet without sleep disorders. The patient could not remember the medications prescribed during this period. Drug treatment lasted about two years. At that time, the patient noticed a slight improvement in his mental state - mainly a significant reduction in the severity of obsessive-compulsive symptoms and better social functioning. Then, the patient discontinued his treatment.

After about two years, he visited psychiatrist again, though he could not recall the drugs that had been recommended. He claimed that he was functioning on them relatively well until 2015, when, despite the systematic drug intake, there was another deterioration of his mental state. The patient experienced suicidal thoughts, ideas of reference and significant obsessive-compulsive disorder symptoms. The patient felt that everything around him was contaminated with sperm. Such conviction forced him to wash himself, especially his hands and also other objects, perpetually. What is more, he repeatedly checked whether the items he had touched and washed previously were still clean. He was convinced that a woman who might have touched soiled objects, would become pregnant with him. While driving, he felt as if he had hit the pe-

Citation: Anna Urbańska., et al. "Schizo-obsessive Disorder - Diagnostic and Therapeutic Difficulties - Case Report". Acta Scientific Neurology 3.8 (2020): 56-61.

destrians. He had an urge to turn back and check if nobody was lying on the street wounded. Due to these thoughts, he had to drive a car with an accompanying person. During this period, he had a tendency to abuse alcohol (he drank for several days, followed by several days of abstinence).

On May 17, 2016, he was admitted to the Psychiatric Department of the Hospital in Sandomierz. During this period of treatment, the patient became apathetic, depressed and limited contacts with other people due to his fear and anxiety. He didn't see the meaning of his life, stopped working and couldn't leave his home for a long time. He also had suicidal thoughts.

In the ward, he remained depressed and anxious. He spent most of his time in the room, lying in bed or repeatedly performing obsessive activities. Quetiapine (max 125 mg/day) and fluvoxamine (max 250 mg/day) were introduced as pharmacological treatment.

During hospitalization, due to a significant increase in transaminase values, a change in pharmacotherapy was necessary. Then, the treatment was modified to escitalopram (max 20 mg/ day) and aripiprazole (max 7.5 mg/day). In effect, a gradual decrease in transaminases was observed, which, however, did not reach normal levels during the hospital stay. A head CT (performed in the hospital in Sandomierz) showed a change in the third ventricle, probably of the colloid cyst type. Further observation of the lesion and control MRI of the head was recommended. The patient was discharged from the ward on September 16, 2016 with a significant improvement in mood, balanced drive, without anxiety, suicidal thoughts, with significantly less obsessions and compulsions. The diagnosis: Obsessive-compulsive disorder and Druginduced liver damage.

After discharge from the ward, the patient's improvement continued for about a month.

On October 10, 2016, the patient returned to the psychiatric ward of the Hospital in Sandomierz due to his suicidal thoughts related to relapse and exacerbation of obsessive-compulsive disorder and increasing depressive symptoms. The treatment included: venlafaxine (max 300 mg/day), aripiprazole (max 15 mg/day), pregabalin (max 300 mg/day), escitalopram (max 10 mg/day), trazodone (max 300 mg/day), clorazepate (max 10 mg/day) and clomipramine (max 150 mg/day). Partial improvement of mental state was obtained: reduction of obsessive-compulsive severity, improvement of mood and drive, reduction of anxiety. On February 20, 2017, the patient was discharged. Diagnosis was maintained: Obsessive-compulsive disorder and Drug-induced liver injury. Additionally: Depression episode moderate.

Then he was treated as an outpatient. He took aripiprazole (7.5 mg/day), venlafaxine (300 mg/day) and pregabalin (300 mg/day). He claimed that he was functioning quite well for several months and did not observe any significant side effects of the drugs. Gradually, however, the patient's condition was getting worse.

In September, 2017, outpatient pharmacotherapy was changed to duloxetine (30 mg/day) and amisulpride (200 mg/day). The patient did not tolerate the recommended treatment well. He claimed that he was sleepy, lay down all day, and that his obsessive symptoms increased. Amisulpride was changed to risperidone. At a dose of 3 mg per day, a rash appeared.

The greatest severity of symptoms occurred about 3 - 4 weeks before the admission to our Clinic. There was a significant increase in the number of intrusive thoughts and activities, especially those associated with his semen. There were also obsessions related to red colour: "I am afraid that I could start a fire just by touching red things" and driving a car. "I checked if I did not hit anyone or hurt anyone; even walking, although I knew that I didn't do it; when I passed someone, I checked in the rear view mirror; when that person disappeared, I turned back and checked." The patient was constantly in bed, avoided social contacts. He had ideas of reference attached to current life situations. He had to use daily toilet with the mother's help. His appetite was reduced, he did not taste the dishes and also claimed that his sense of smell had been disturbed. He reported problems with attention, memory and sleep disturbances as well (problems falling asleep, waking up early, problems with falling asleep again). He confirmed the constant presence of resignation thoughts.

Initially, the patient in the ward was tense, anxious, reluctant to leave the sick room. The problems with personal hygiene appeared. He needed the help of his mother, other patients or staff due to his obsession: associations of the liquid hygiene products with sperm. He also reported the urge to repeatedly lift and wash glasses, teaspoons "stained with semen", the urge to unscrew water and to return to previously visited places to check them, looking over his shoulder whether he had not hurt people walking along the corridor. In addition, routine laboratory tests revealed previously untreated hypothyroidism. The treatment resulted in euthyreosis. During hospitalization, the patient experienced an increase in hepatic transaminases without clinical manifestation.

During the patient's stay in our Clinic, a number of psychological tests were performed. An accurate, interpretable profile was obtained in the Minnesota Multidimensional Inventory of Personality Inventory MMPI-2. No exaggeration of symptoms was observed. The analysis of the questionnaire showed that the subject reported

Citation: Anna Urbańska., et al. "Schizo-obsessive Disorder - Diagnostic and Therapeutic Difficulties - Case Report". Acta Scientific Neurology 3.8 (2020): 56-61.

a sense of unhappiness, depression, lack of energy and motivation. He was not interested in what was happening around him, he had no strength to perform everyday duties and routines, he could not solve his problems. He was feeling constant tension and anxiety, he did not have faith in his own abilities. He also felt bad and uncomfortable in various social situations. What is more, the examined person avoided people, felt emotionally blocked, couldn't achieve any joy or pleasure of life, kept isolating himself and mostly remained passive in contacts. He felt embarrassment and uncertainty in new situations. He could report a number of somatic symptoms, having denied his being in good health. The respondent revealed a number of obsessive and obtrusive thoughts and rituals, which were accompanied by excessive fear. He was unable to control his own emotions and impulses. He reported bizarre thought processes, feelings of unreality and difficulty concentrating. He had a tendency to worry too much and discuss possible failures. He was also hyper sensitive to criticism, showed low self-esteem and pessimistic approach full of discouragement. The patient was very poorly adapted to coping with stress and unable to find himself in situations requiring decisiveness. An excessive number of complaints from the group of obsessive-compulsive disorder constituted the main obstacle in proper psychosocial functioning of the patient.

In the Graham-Kendall Test of Geometric Forms Memory (0 points) and the Gestalt L. Bender Visual and Motor Test (56 points), the subject obtained results within the normal range. The results of neuropsychological tests did not indicate the presence of organic lesions in the CNS. An examination of R. B. Cattell's Self-Recognition Spreadsheet showed persistent internal tension and anxiety.

The subject was poorly socially adapted, had difficulties in group interactions. He was characterized by a lack of faith in his own abilities, he was full of fears, dissatisfied with himself, with lowered self - esteem, not focused on achievement. According to Crumbough's and Macholik's PLT Scale the respondent did not have specific life goals or aspirations. It was difficult for him to make specific decisions about his future life, he saw no sense in life, believed that the chances of finding a goal and role in life are very small. He felt lost in the surrounding reality. He had little satisfaction in his life, could not enjoy it, every day was the same for him, and his daily duties were unpleasant and full of anguish. He believed that life was worthless, empty and despairing. The respondent felt that life was slipping out of his hands and that a free choice for a person could not exist. The Sacks and Sydney Completion Test revealed that the respondent had a sense of support in the family, although he knew that the family treated him as a sick person. Nevertheless, he positively evaluated the relationship with his mother. He never had a good relationship with his father because he was addicted to alcohol and died of it. The respondent felt general dissatisfaction in relations with women.

He reported a number of concerns and fears that destabilized his life. For the patient, there were no specific plans for the future. Pharmacotherapy was modified during his stay in the Clinic. Risperidone and duloxetine were discontinued. Initially, venlafaxine at a dose of max 300 mg/day, olanzapine at a dose of max 25 mg/day and aripiprazole at a dose of max 30 mg/day were introduced into treatment, without achieving a satisfactory level of functioning. Then venlafaxine was discontinued and sertraline max. 200 mg/ day was used. Additionally, max 60 mg/day mianserin was introduced. Due to the low effectiveness of pharmacotherapy, patient's preparation for ECT began.

A number of laboratory and imaging tests were performed. There were no deviations in X-ray. The EEG study (Feb 20, 2018) found: generalized changes related to basic activity - slightly slow (theta-alpha), with a series of fast-drug activities and moderately marked changes with paroxysmal features, generalized (abortive discharge of spire-wave syndromes and slow theta waves). These changes may have been related to the pharmacotherapy used before. The previous EEG study from July 2016 showed no abnormalities.

In the control CT of the head (26.02.2018) in the vault of the third chamber, a circular hyperdense focus with a 7 mm diameter was observed. The image suggested a colloidal cyst. No detectable lesions were found in CT scan within the cerebral hemisphere and cerebellar structures, the ventricular system of the brain and skeletal structures of the skull.

The patient was also consulted with internist and neurologist. In both cases, there were no contraindications for the procedures. Therefore, he was qualified for ECT treatment and underwent 12 electroconvulsive procedures between March 12 and April 20, 2018 with good results and high tolerance of treatment.

As a result of ECT and pharmacotherapy modifications, a gradual improvement of the mental state was obtained. The patient began to eagerly establish relationships with other patients. He participated in community meetings and in occupational therapy, morning gymnastics or culinary training. He carried out all hygiene operations without obstacles. To sum up, overall improvement in patient's performance was achieved.

On April 24, 2018, the patient was in a good general condition, clear awareness, correct auto- and allopsychic orientation, in a balanced mood and drive, without perception, content and thinking disorders and suicidal thoughts. He was discharged home under

the care of the family with diagnoses: Schizo-affective disorder, depression type F25.1, drug-induced liver injury and Hypothyroidism. The patient was recommended to continue treatment on an outpatient basis and to take medications regularly: olanzapine (10 mg/day), sertraline (200 mg/day), aripiprazole (15 mg/day), mianserin (30 mg/day), levothyroxine (25 micrograms/daily) and thymonacic (600 mg/day). In addition, it was recommended to use easily digestible diet, sparing lifestyle and systematic control of liver parameters.

#### **Discussion and Conclusion**

Schizo-obsessive disorder causes many diagnostic difficulties. The current classifications lacks in adequate criteria for this disease, being a separate diagnostic unit. Moreover, the diagnostic process requires a distinction between the co-occurrence of schizophrenia, schizo-affective disorder and OCD, and the differentiation of these units. In addition, the clinical picture of this type of disorder has a very rich spectrum of symptoms. The clinical case described by us is an example of resistance to treatment, which also falls under the characteristics of "schizo-obsession". This imposes the need for polypharmacotherapy [14,25,29]. The patients, as in the case described above, may not respond to the basic treatment regimens for schizophrenia or schizo-affective disorder. Therefore, a detailed history of OCD symptoms needs to be obtained [33].

It should be remembered that schizo-OCD disorder is associated with a significantly increased deterioration in the social and professional functioning. Patients with symptoms of OCD and schizophrenia show a greater severity of negative and depressive symptoms, cognitive deficits and more often exhibit suicidal behaviors compared to patients diagnosed with schizophrenia without co-existing OCD [11-15,21].

All these factors contribute to a worse overall prognosis, although the impact of OCD on the clinical picture of schizophrenia is not entirely clear [30]. Depending on the source, the prognosis for patients with OCD coexisting with schizophrenia is worse [8-10,22,23] or the same as compared to the group suffering from schizophrenia [24], although some previous studies reported better overall functioning of 'schizo- obsessive" patients [16,31]. Data from clinical studies suggest a different, separate clinical profile of patients with schizophrenia and OCD, which requires consideration in the diagnostic and therapeutic process, as in the case presented above.

#### **Bibliography**

- Bilikiewicz A, red. Psychiatria kliniczna. Tom 2. Wrocław: Urban and Partner (2002): 455-458.
- Craig T., *et al.* "Obsessive-compulsive and panic symptoms in patients with first-admission psychosis". *The American Journal of Psychiatry* 159.4 (2002): 592-598.
- 3. Poyurovsky M., *et al.* "Comparison of clinical characteristics and comorbidity in schizophrenia patients with and without obsessive-compulsive disorder: schizophrenic and OC symptoms in schizophrenia". *Journal of Clinical Psychiatry* 64.11 (2003): 1300-1307.
- 4. Tibbo P and Warneke L. "Obsessive-compulsive disorder in schizophrenia: epidemiologic and biologic overlap". *Journal of Psychiatry Neuroscience* 24.1 (1999): 15-24.
- Poyurovsky M., *et al.* "Obsessive-compulsive disorder in schizophrenia: clinical characteristics and treatment". *CNS Drugs* 18 (2004): 989-1010.
- Frías Á., *et al.* "Psychopathology and quality of life among patients with comorbidity between schizophrenia spectrum disorder and obsessive-compulsive disorder: no evidence for a "schizo-obsessive" subtype". *Comprehensive Psychiatry* 55 (2014): 1165-1173.
- Patel DD., *et al.* "The neuropsychology of the schizo-obsessive subtype of schizophrenia: a new analysis". *Psychological Medicine* 40 (2010): 921-933.
- Fawzi MH., *et al.* "Tobacco smoking in Egyptian schizophrenia patients with and without obsessive-compulsive symptoms". *Schizophrenia Research* 95 (2007): 236-246.
- Tiryaki A and Ozkorumak E. "Do the obsessive-compulsive symptoms have an effect in schizophrenia?" *Comprehensive Psychiatry* 51 (2010): 357-362.
- Whitney KA., *et al.* "Comparative neuropsychological function in obsessive-compulsive disorder and schizophrenia with and without obsessive-compulsive symptoms". *Schizophrenia Research* 69 (2004): 75-83.
- Lisiecka A., *et al.* "Zespół natręctw w przebiegu schizofreniiefektywność leczenia klomipraminą". *Postępy Psychiatrii i Neurologii* 14 (2005): 81-83.
- Lin SK., *et al.* "Higher plasma drug concentration in clozapine-treated schizophrenic patients with side effects of obsessive/compulsive symptoms". *Therapeutic Drug Monitoring* 28 (2006): 303-307.

- Mahendran R., *et al.* "De novo emergence of obsessive-compulsive symptoms with atypical antipsychotics in Asian patients with schizophrenia or schizoaffective disorder: a retrospective, cross-sectional study". *Journal of Clinical Psychiatry* 68 (2007): 542-545.
- 14. Sa AR., *et al.* "Obsessive-compulsive symptoms and disorder in patients with schizophrenia treated with clozapine or haloperidol". *Comprehensive Psychiatry* 50 (2009): 437-442.
- 15. Kim SW., *et al.* "The 5-HT2 receptor profiles of antipsychotics in the pathogenesis of obsessive-compulsive symptoms in schizophrenia". *Clinical Neuropharmacology* 32.4 (2009): 224-226.
- 16. Tibbo P., *et al.* "Obsessive- compulsive disorder in schizophrenia". *Journal of Psychiatry Research* 34 (2000): 139-146.
- 17. Hollander E and Kwon JH. "Obsessive-compulsive and spectrum disorders: Overview and Quality of Life Issues". *Journal of Clinical Psychiatry* 57 (1996): 3-6.
- Poyurovsky M and Weizman A. "Intravenous clomipramine for a schizophrenic patient with obsessive-compulsive symptoms". *The American Journal of Psychiatry* 155.7 (1998): 993.
- 19. I Levy E., *et al.* "Obsessive compulsive symptoms in schizophrenia induced by risperidone and responding to fluoxetine". *Canadian Journal of Psychiatry* 48.10 (2003): 709-710.
- 20. Poyurovsky M., *et al.* "Obsessive-compulsive disorder in patients with first-episode schizophrenia". *The American Journal of Psychiatry* 156.12 (1999): 1998-2000.
- F Schirmbeck., *et al.* "Stable cognitive deficits in schizophrenia patients with comorbid obsessive-compulsive symptoms: a 12-month longitudinal study". *Schizophrenia Bulletin* 39.6 (2013): 1261-1271.
- 22. Nechmad A., *et al.* "Obsessive-compulsive disorder in adolescent schizophrenia patients". *American Journal of Psychiatry* 160 (2003): 1002-1004.
- Ongur D and Goff DC. "Obsessive-compulsive symptoms in schizophrenia: associated clinical features, cognitive function and medication status". *Schizophrenia Research* 75 (2005): 349-362.
- Frías Á., *et al.* "Psychopathology and quality of life among patients with comorbidity between schizophrenia spectrum disorder and obsessivecompulsive disorder: no evidence for a "schizo-obsessive" subtype". *Comprehensive Psychiatry* 55 (2014): 1165-1173.

- M Zink., et al. "Polypharmacy in schizophrenia". Current Opinion in Psychiatry 23.2 (2010): 103-111.
- MH Bloch., et al. "A systematic review: antipsychotic augmentation with treatment refractory obsessive-compulsive disorder". Molecular Psychiatry 11.7 (2006): 622-632.
- 27. M Dold., *et al.* "Efficacy of antipsychotic augmentation therapy in treatment-resistant obsessive-compulsive disorder a metaanalysis of double-blind, randomised, placebo-controlled trials". *Fortschritte der Neurologie Psychiatrie* 79.8 (2011): 453-466.
- NA Fineberg., *et al.* "A review of antipsychotics in the treatment of obsessive compulsive disorder". *Journal of Psychopharmacology* 20.1 (2006): 97-103.
- R Cunill., *et al.* "Relationships between obsessive-compulsive symptomatology and severity of psychosis in schizophrenia: a systematic review and meta-analysis". *Journal of Clinical Psychiatry* 70.1 (2009): 70-82.
- Rajkumar RP and Reddy YCJ. "Clinical profile of "schizoobsessive" disorder: a comparative study". *Comprehensive Psychiatry* 49 (2007): 262-268.
- Poyurovsky M., *et al.* "Obsessive-compulsive disorder in hospitalized patients with chronic schizophrenia". *Psychiatry Research* 102 (2001): 49-57.
- 32. Maj M., *et al.* Obsessivecompulsive disorder, Second Edition, John Wiley and Sons Ltd (2002).
- Shetty P and Rathod N. "Schizo-obsessive disorder: a diagnostic dilemma, Andhra Pradesh". *Journal of Psychological Medicine* (2012): 122-123.

## Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

Website: www.actascientific.com/

Submit Article: www.actascientific.com/submission.php Email us: editor@actascientific.com Contact us: +91 9182824667