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Case Report

Doppelganger Theme Occurring after Psychotherapeutic Mourning Treated with Lai-Aripiprazole

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Abstract

S.D. had a psychotic disruption after a prolonged period of apparent wellness. This disruption occurred after death of her psychotherapist. She presented bizarre delusion involving her body and her parents and she was mostly anxious. Her delusions and hallucinations were characterized by the presence of an evil twin. We discuss psychopathological aspects of this case: Capgras syndrome and Schnider's first rank symptoms such as echoing voices saying opposite contents. We successfully treated her with LAI- aripiprazole suggesting the possibility to treat psychotic symptoms in schizoaffective or bipolar diathesis.

ABBREVIATIONS

CGI: Clinical Global Impression; BOLD: Blood Oxygenation Level Dependent; DSM: Diagnostical and Statistical Manual of Mental Disorders; EPS: Extrapyramidal Symptoms; MMPI: LAI: Long Acting Injection; PANSS: Positive and Negative Schizophrenic Symptoms

INTRODUCTION

Bizarre thoughts are considered one of the diagnostic symptoms of schizophrenia from Schneider to DSM categories [1] but we recognize them also in schizoaffective disorders or in bipolar disorders with psychotic features. Influencing delusion, proneness experience and mechanization delusion were considered as disturbances of experience regarding the boundary of self [2]. Karl Jaspers [3] describes"incomprehensible experiences" of schizophrenic thought such as "the experience of the imposed action or thought of feeling by external forces". There is a progressive loss of belonging until the idea of an external force or enemy that is the influencing machine hypothesized by Tausk [4] in its masterpiece "the influencing machine". According to the patient, proneness experiences such as kinesthetic hallucinations are made by mysterious machines that operated by rays, magnetic forces. Both these authors postulated a gradual splitting of the belonging of the psychic contents. Influencing thought, concerns about thoughts manipulated by external engines, echoing thoughts and experiences of body transformation are all passivity phenomena that suggested phenomelogists [5] and they represent some of the nuclear symptoms of schizophrenia (Schneider's first rank symptoms). Such experiences are slightly present since premorbid period as the alterations of the boundary of self that are also listed in EASE interview [6]. We present a case of "mechanization" delusion with peculiar features treated successfully with LAI aripiprazole.

According to Tausk, [4] the influencing machine was used by "almost exclusively of the male sex" and often the treating doctors. On one side our patient had a good therapeutic relationship with her psychiatrist and also with us but on the other side she was diffident and ambivalent with us. According to Tausk "the influencing machine has a mystical nature and patients describe it only by hints or allusions" and the description about functioning is always dim and the existence of those engines is "perceived" but never well clear. The influence is realized with rays, telepathy, magnetic forces (suggesting machine) and sometimes such mystical influence is generated by mechanical

or technological tools (e.g. the under skin implantable engine for our patient). The machine is assumed as responsible for strange somatic sensations but it also influences or generates motor responses of the body and even cutaneous manifestations [4].

The double theme appeared after a trauma that enhanced the splitting theme and the "unheimliche" [7] sensation: death of her referent psychiatrist. Mourning and sudden death of the healing feature caused mourning and pain for the decoupling of the therapeutic alliance. The psychotherapeutic couple, a healthy and safe setting, was dramatically disrupted. The "good" twin of the patient, the "healing" pole of the psychotherapeutic couple disappeared and psychotic symptoms occurred as no- accepted loss of the "good" father. Patient was separated by Good father and so Evil parent appeared. Perturbing elements have occurred where there was a heavy loss, a loss of familiar feature that only hospitalization was able to restore.

CASE PRESENTATION

We admitted to our psychiatric emergency unit, S.D. a 30 years old woman affected by a psychomotor agitation. She showed a high quote of anxiety caused by delusional believes and auditory hallucinations. Her initial diagnosis was "disruption phase in a psychotic disorder".

The first psychic examination showed a patient awake and oriented in space, time and identity. She appeared terrified by her feelings and her transformation intuitions that she described in a deep and detailed style that seemed to be unusual for a psychotic patient. Her thought fluency appeared slightly slow and polarized on persecutory contents. She showed severe formal thoughts disturbances (influencing and persecutory ideas but also transformation and changeling delusions): she told us that her parents were exchanged by two evil "doppelganger" (Capgras syndrome- like delusion) and she refused to speak with them. She also was extremely concerned about her neighborhood and their intentions of spying and doing something very cruel and dangerous to her. She made a voluntary admission in order to escape from such awful experience. She thought that someone was spying her by implantations placed under skin applied during the night sleeping at home. The persecutory thought made by a mysterious engine spying her (as Tausk described in its work "the influencing engine") was partially criticized and it was built up in order to explain the anxious, apocalyptic atmosphere of changing of the environment, her interiority and people around her. Her humor tone was slightly depressed but heavily worried. She changed her level of criticism toward her delusional believes very quickly and in a consistent way. She did not show perplexity and she was able to describe very well her emotional states and thoughts. Auditory hallucinations were present and they were characterized by echoes and replying voices of speakers. She told clinicians that sometimes the replying voice said the opposite of the previous and real content of the speech. Her behavior was quickly swinging between trust or despaired help seeking and distrustfulness or perplexity towards clinicians. She was affected by initial and central insomnia. Memory and volition were labile and fluctuant. Compliance was absent probably due to her subtle but persistent distrustfulness and passive- aggressive behavior.

She was affected by bipolar syndrome since she was 22. She was in charged by a mental territorial district. Her psychiatric and psychotherapeutic referent suddenly died in September and after its death she dropped out therapy and follow up. She was treated with lithium. She was a psychiatric rehabilitation student. Her father showed substance abuse problems. Her brothers were both treated for bipolar disease. Cannabis use was suspected during adolescence.

She remained in our unit for 12 days. She was treated with aripiprazole and lithium 300 mg three times daily, delorazepam 10 guttae per day and asenapine 10 mg 2tablets per day. At day 3 aripiprazole 1injection three times per day was administered. She quickly responded to intramuscular therapy and she appeared emotional indifferent towards delusional believes and sometimes ironic toward them. Anxiety still remained. Aripiprazole was decreased to 1injection twice daily. After 5 days she appeared less anxious and more collaborative. At day 8 after her admission, clinicians administered her aripiprazole long acting 400mgr by injection previous hematic profile, EKG with QTc rate. Treatment adverse events were absent. She showed an improvement of positive symptomatology and she was dismissed with the latter therapy: lithium carbonate 300mgr 1 x 2 tablets/die, delorazepam 10 guttae before sleeping and aripiprazole 10 mg 1 tablets daily for 11 days (long acting conversion scheme). She repeated aripiprazole 400mgr long acting after 1 month in our service.

The histrionic behaviors became more evident while positive symptoms dramatically decreased. After three days of aripiprazole treatment, she showed a sort of "belle indifference" towards delusional theme and an unusual calm that was very different from previous concerning and mourning humor. Day by day she became more active and organized in speech and in self – caretaking. She showed an improvement of volition and a remission of delusional thoughts. She also showed a better adherence to treatment but a relationship impairment still remained. Finally she recognized the parents as who they really were and she admitted her evaluation errors toward them. She seemed to accept the importance of therapy and follow up in mental health service where she had to attend psychiatric appointments and where her clinician administered to her aripiprazole long acting.

Haematic exams did not shown alterations. EKG showed a synusbradycardia without QTc prolongation nor dangerous rhythm alterations. MMPI narrative report showed interesting aspects: slightly decreased humoral tone with somatic manifestation like asthenia, poor volition and energy, ideation poverty. A trend of social introversion and a low adherence to social rules was present. Aggressive behavior was possible and caused by great interpersonal problems. The modality of expression was often mediated by the body and nonverbal language and it might determinate a trend to proneness, manipulation until hypochondrias and hysteric manifestations.

DISCUSSION

We noticed in this patient an absence of perplexity and fragmentation of thought that was characteristically expressed in psychotic experiences together with an unusual decoupling manifestation. The patient was worried about persecutors

but also about the doppelgangers. We noticed that her parents were not recognized, her neighborhood were involved in an evil plan against her safety and comfort. Her hallucinations were very unusual: she admitted that she listened to a replying voice that denies the content of every incoming conversations with clinicians. She confirmed that she heard voices without a body and she was partially awake that these voices were not real. Capgras and Fregoli syndromes were related to prosopagnosia or difficulties to recognize familiar faces. The disturbing and awful delusional atmosphere seemed to lead to recognizing errors. Influence, control, passivity were disturbances of experience of self. The influence delusion was very weird and very similar to primary delusions and they have the peculiarity of "unfamiliarity" so unfamiliar to be "in human" or "dead and mechanized" (e.g. a device implanted in her body to spy or to damage her life) . She tried to escape from this splitting identity searching for help in hospitalization where she received a holding and a limitation of her fragmentation and disappearing of body experiences. Freud's [8] discover of unconscious made mind an unsafe place, a place where "Ego is not master at its own home". There is a part, a consistent part of interiority that is out of consciousness reach and that influence conscious thoughts, emotional life and behavior. The presence of that obscure twin is perceived in the same time unconscious, weird even dangerous but as a product of its own mind. It is an obscure part but ego syntonic lived. In psychosis, splitting is the main theme and this influence is saw as an evil, foreign, apocalyptic and unknown side that is no more recognized as belonging to itself also in physical sense.

The delusional theme of the influencing machine or suggesting machine (when the influence is not mediated by an engine) according to Tausk is generated by a need of causality because early psychotic symptoms are very hard to be described and to be explained. Tausk affirmed that the influencing machine is a point of arrival of a process caused by a symptom such as a bizarre transformation perception [4]. The machine delusion is an attempt to ascribe inner transformation to external environment [4]. Michotte affirmed that the causality is an aspect of the perception such as color, shapes or motion and that was strongly influenced by some specific perception conditions [9].

Aripiprazole was useful in this case for different aspects. Aripiprazole [10] is a competitive molecule for its cardiovascular safety profile, its lack endocrine collateral effects and metabolic side effects. It has a unique D2 binding profile as partial agonist so it is named "dopamine system stabilizer or modulator" [11]. It is also a 5HT1A agonist and a 5HT2A antagonist. Aripiprazole control positive symptoms are well [12] as far as cognitive and negative symptoms because aripiprazole maintains an intermediate dopaminergic tone: reducing hyperactivation and stimulating hypoactivation in dopaminergic systems [13]. Aripiprazole enhances dopamine release in the medial prefrontal cortex in animals [14-16] while improves secondary verbal memory in humans[17]and enhances BOLD- signal during a working memory task in dorsal area of anterior cingulate cortex [18]. Aripiprazole long acting is indicated for schizophrenia. It is very suitable for young adults and first episodes in preventing relapses and in maintaining a better quality of life in comparison with other antipsychotics more sedative or more prone to metabolic side effects. Aripiprazole long-acting is administered after 2 weeks of oral administration. The half-life of LAI aripiprazole is 46.5 days for a 400 mg dose and 29.9 days for a 300 mg dose, 54 allowing for a once-monthly injection. Steady – state is reached after two month of LAI aripiprazole. Aripiprazole long acting reduces [19,20] relapses and aggressive behaviors in comparison with placebo group. Akathisia was not significantly superior to placebo group but EPS and tremor were most common in aripiprazole group. Efficacy with a good profile of tolerability is widely assessed by several works [21-23]. Aripiprazole seems to be safer for cardiovascular and metabolic side effects compared other atypical antipsychotics [24]. Hospitalization rates are lowered with long acting formulation according to an open label study [25] while according to another work long acting formulation and oral formulation of aripiprazole were similar in preventing relapse and hospitalization [26]. Another study [27] demonstrated that EPS and metabolic side effects were similar to placebo but they are noticed insomnia, headache, injection site pain, akathisia and anxiety and tremor [27]. According to a review the most common side effects were injection site pain, headache, tremor were the most common side effects and they are dose- dependent [24]. According to a recent meta-analysis, aripiprazole long acting has the number of dropout for any reason slightly reduced in comparison with oral formulation. Data about aripiprazole are estimated of high quality providing the better balance between harm and benefit compared with oral aripiprazole with a small advantage (number needed to treat 14) [28].

The first administration is 300 mg dosed, the second one is repeated after one month and it is 400 mg dosed. Aripiprazole LAI allowed a better adherence to pharmacotherapy thanks to no - sedation induction and no weight gain side effects in this case. She dropped out previous oral treatment suggesting that LAI – aripiprazole formulation might improve psychopharmacological compliance and it also might prevent relapses versus oral formulation. Although she had an assessed diagnosis of bipolar disorder, echoing voices, Capgras syndrome like suggested heavy presence of Schnider's first rank symptoms that indicated as proper the use of aripiprazole. Our patient returned to her study and activity daily living without sedation nor weight gain. A discrete remission was reached with LAI- aripiprazole monthly administered.

Aripiprazole long acting is approved for acute schizophrenia and its maintenance. It is suitable for young adults for its lack of sedation, less drowsiness and orthostatic hypotension. It improved social and working functioning that is very important for the quality of life especially of young patients that need to achieve life goals. Cardiovascular safer profile and its lack of weight gain effect are important for preventing diabetes and metabolic syndrome that is a great problem in long term therapy in schizophrenic patient. The absence of sedative and weight gain proprieties realizes a better adherence to therapy in comparison with other antipsychotic drugs. According to Kapur's point of view, our patient might have be experienced a dramatic stress that probably disrupted the balance of dopamine release disturbing the assignment of salience about external stimuli and inner representations. Dopamine regulates reward, appetite, pleasure but also the capability to give attention and meaning to inner and external stimuli and it could be the core and the first step of a psychosis process [29].

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