[Abstract:0722][Schizophrenia and other psychotic disorders]

Supersensitivity psychosis syndrome (SPS) re-visited: results of systematic analysis and suggested Bakirkoy diagnostic criteria

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OBJECTIVE: Antipsychotic Drugs (APDs) have been used treatment of psychotic disorders since their development in the 1950s. There is evidence that APD treatment, in particular first-generation generation and potent D2-receptor blocker APDs may result in the development of Supersensitivity Psychosis Syndrome (SPS). In daily practice, SPS is generally interpreted as an exacerbation of psychotic disorders and is being treated with increasing dose of APD. But this is often does not work. There are cases, which have have been reported psychotic relapse after discontinuation of APDs. This situation supports independently of the underlying disease diagnosis that is an iatrogenic syndrome. Neurobiology of SPS involves up-regulation of post-synaptic dopaminergic receptors, a progressive hypersensitivity to dopamine, and postsynaptic neuroadaptive changes in gene expression. Dopamine supersensitivity consists of positive symptoms of schizophrenia, e.g., delusions, hallucinations, thought disorder, and presence of abnormal involuntary movements.

In general, most first-episode patients require relatively lower doses of APDs which mostly require higher doses given multiple relapses. However it remains unclear whether this is due to the progress of illness and/ or due to the development of SPS. It has been reported that approximately 50% of cases of treatment resistant schizophrenia are due to dopamine hypersensitivity psychosis. Life events also contribute to the development of SPS. Therapeutic approaches to SPS include; (1) switch to an antipsychotic drug with different mechanism of action (2) prefer lower affinity for the D2 receptor APD, (3) consider to adding 2-adrenoceptor receptor blocking drugs to the treatment, or (4) treatment with antiepileptic drugs (lamotrigine, topiramate, valproic acid). It is also recommended to maintain the lowest possible dose of APD, which is taught to minimize the development of PSP. Therefore, we are presenting the systematic analysis of the data from our hospital regarding diagnostic criteria of PSP.

METHOD: We conducted a systematic (all) retrospective chart review of all the patients who were treated in the female inpatient unit during a year (between 01 February 2015 and 30 January 2016). From these patients who had SPS were identified which ADP treatment and increasing dose in these cases have increased their psychotic symptoms.

RESULTS: Five of these patients were diagnosed with schizophrenia (50%), three of them were diagnosed with schizoaffective disorder (30%), two of them were diagnosed with bipolar disorder (20%) also mean disease duration of 14.5 years. These patients were presented with auditory and visual hallucinations, delusions of reference, delusions of persecution, mystical delusion and jealousy, formal thought disorder, and some of them had mood changes. Antipsychotics causing hypersensitivity psychosis in patients were:

- Aripiprazole (3 cases)
- Risperidone (4 cases)
- Haloperidol (2 cases)
- Paliperidone (1 cases)

CONCLUSION: In this article, we present ten case about neuroleptic-induced supersensitivity psychosis. In our patient the worsening of psychotic symptoms after antipsychotic therapy. This effect can be associated with level of striatal dopamine D2 receptor blockade. The loss of efficacy of antipsychotic has seen with synaptic modifications. Long-term antipsychotic treatment increases the number of D2 receptor and affinity. This also leads to exacerbation of psychotic symptoms. In order to avoid it, we recommend to use the lowest possible dose of antipsychotic medication or long-acting depot injections.

Keywords: antipsychotic drug, dopamine, supersensitivity psychosis syndrome

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