

CASE REPORT ON HALOPERIDOL INDUCED PARKINSONISM AND IT'S MANAGEMENT

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ABSTRACT

Schizophrenia patients who are in the treatment with Typical Anti-Psychotics drugs are at higher risk of developing extra pyramidal symptoms. The objective of this case report is to enhance awareness for medical practioners concerning Typical Anti-Psychotic drugs induced Parkinsonism/Extra Pyramidal Syndrome (EPS). We report a patient, who is a known case of Chronic Schizophrenia, was treated with Haloperidol 5mg t.i.d for one month, this caused the patient to suffer with Extra Pyramidal Syndrome, and then the patient was advised to stop Haloperidol. Instead Atypical Anti-Psychotic Olanzapine 2.5mg orally was prescribed which showed gradual improvement and recovered from Extra Pyramidal syndrome after a month.

Keywords: Schizophrenia, Haloperidol, Parkinsonism, Extra pyramidal syndrome

Introduction

Schizophrenia is a psychiatric disorder, which manifests with multiple symptoms involving thoughts, perception, emotions, movements and behaviour. It is a major health problem which affects a sizeable population throughout the world [1]. It is estimated to affect 1% of the general population but it occurs in 10% of people who have a first degree relative with the psychiatric disorders. Evidence from epidemiological research indicates that schizophrenia occurs in all populations with prevalence in the range of 1.4 to 4.6 per 1000 and incidence rate in the range of 0.16-0.42 per 1000 population [2]. Antipsychotic drugs have become the corner stone of treatment for schizophrenia. Approximately, 50% of patients with schizophrenia do not obtain adequate relief with conventional neuroleptics (typical antipsychotics). Haloperidol comes under the category of dopamine inverse agonist prescribed frequently for the treatment of schizophrenia world-wide. Though haloperidol is highly effective against the hallucinations and delusions in schizophrenia, it is not as useful in controlling the negative symptoms like extra-pyramidal side effects which results in movement disorders.

Typical antipsychotics produce extra pyramidal side effects e.g. acute Dystonic reactions, sub-acute Parkinsonism, Akathisia. Antipsychotic drug-induced EPS is thought to be caused by the blockage of central dopamine D₂ receptors by the death of dopamine producing neurons [3-4].

Extra pyramidal symptoms are neurological disturbances caused by antipsychotics (or a neurological disorder) in the area of the brain that controls motor coordination. High-potency first-generation antipsychotics, such as haloperidol and fluphenazine, are more likely to induce EPS than the low potency agents. The antipsychotics can produce symptoms like Parkinson-like symptoms (Parkinsonism) that include muscle stiffness, rigidity, tremor, drooling, and a "mask like" face. However, unlike Parkinson's disease, which is a progressive neurological disease, Parkinsonism which occurred due to antipsychotic drugs are reversible. It may be treated and prevented, by using anti-parkinson drugs (also called anticholinergic agents), such as Bantzropine, Diphenhydramine, Trihexyphenidyl and procyclidine [5].

Patients who are in need to take antipsychotic drugs for psychiatric disorder, such as those with schizophrenia or major depressive disorders, may be switch to atypical anti-psychotics that have a lower risk of EPS [6]. In this case report we are going to report about the patient diagnosed with schizophrenia who has been on treatment with Typical antipsychotic (Haloperidol) for

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1 month experienced parkinsonism and further management was detailed below.

Case report

A thirty three old male patient was admitted with Parkinsonism like symptoms was under the treatment of Haloperidol 5mg t.i.d for the past one month, which was prescribed for chronic schizophrenia. He came to the hospital with the complaints of increased salivation, rigidity in movement, slowness in movement, sleep disturbances and slurring of speech. These symptoms were seen after a month when he was in haloperidol. On Physical examination he was found to have Cog wheel like rigidity and mask like face. Then the patient was advised to stop Haloperidol and prescribed with the following medicines Promethazine (Pheneragan) 1amp iv BD, Tetrahydropalmatine (THP) 2mg b.i.d oral, Olanzapine(Oleanz), Risperidone+Trihexyphenidyl HCL (Riswel-LS) along with Vitamin-B supplement. After a month gradual decrease in Extra pyramidal symptoms and resulted in good health outcomes.

Discussion

Haloperidol is a typical antipsychotic drug. It comes under the category of dopamine inverse agonist used in the treatment of schizophrenia. Unfortunately, the therapeutic effects of Haloperidol also come with severe extra-pyramidal side effects, resulting in movement disorders. Side-effects of haloperidol include unusual, slowed, or uncontrolled movements of any part of the body, stiff or weak muscles, nervousness, agitation, blank facial expression, slowed breathing, sleepiness and loss of consciousness. The Patho-physiological mechanism is associated with dopaminergic D₂ and serotonergic 5-HT_{2A} receptors blockade and low affinity of particular Anti Psychotics to acetylcholine receptors. Although drug-induced Parkinsonism is considered a reversible condition in

most cases it usually lasts up to 4 months, it can last 6-18 months, and in 15% of cases it has been even described as persistent. In case of persistent symptoms, antipsychotic induced Parkinson's disease should be taken into consideration, and it should be treated with dopaminergics [3].

Conclusion

From this case, it was found that instead of using Haloperidol (First generation antipsychotics/ typical antipsychotics); it is good to go on with second generation/ atypical antipsychotics like olanzapine, quetiapine etc., But selection of these drugs should be based on the patients condition.

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