



Fluphenazine Toxicity in a Child: A Diagnostic Dilemma

KEYWORDS

Fluphenazine, Unauthorised practitioner, Side effects

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Introduction

Fluphenazine is a trifluoromethyl phenothiazine derivative indicated for treatment of Schizophrenia. It exerts its antipsychotic effects by blocking dopamine and other catecholamine receptors. Fluphenazine differs from other phenothiazine derivatives in having less CNS depressant effects, however as compared to other phenothiazine derivatives it has greater propensity to produce extrapyramidal symptoms.

Case Report

A 15 year old male child presented with dysphagia with history of one episode of abnormal body movements 7 days back followed by difficulty in swallowing, increased salivation, slowness of movements and abnormal gait. At admission vitals were stable but he was drowsy, lethargy and had small shuffling gait and mask like facies.

There was history of mild developmental delay and subnormal intelligence since birth. There was no other significant past history apart from one hospital admission at 6 months of age for possible CNS infection. On examination he had hyperpigmented acneform facial eruptions, drooling of saliva, stiff posture and rigidity.

As dysphagia was the primary concern, direct laryngoscopy and upper GI endoscopy was advised by the referring physician which was unremarkable. Routine evaluations were sent including CBC, LFT, Thyroid profile and CSF examination. EEG was done in view of probable seizure episode. All the reports were found to be normal.

On further examination few hypo pigmented skin patches of 1.2 cm over trunk were found resembling ash leaf macules. In view of above findings possibility of tuberous sclerosis was kept. MRI brain was done which was absolutely normal, Dermatology reference was taken and it was concluded that the skin lesions were not in favor of tuberous sclerosis. During further interview with the attendants it was revealed that he was on some medication for last one month prescribed by some local unauthorized practitioner for some psychiatric ailment which could not be possible to extract from history. He also received an intramuscular dose of same drug one day prior to admission. After telephonic conversation with the practitioner we came to know that prescribed drug was "PROLIXIN" which was Fluphenazine.

On further reviewing the literature about fluphenazine, the manifestations present in the patient could be easily explained with the side effect profile of the offending drug.

A diagnosis of fluphenazine toxicity was made and the pa-

tient was managed conservatively with benzodiazepines, anticholinergics and bromocriptine with a strict follow up plan to review the response.

Discussion

Phenothiazines are drugs frequently used in the treatment of hospitalized and ambulatory psychiatric patients. The usual side effects of these drugs are familiar to psychiatrists. Prolixin (Fluphenazine) is a phenothiazine, used for the treatment of schizophrenia and psychotic symptoms such as hallucinations, delusions and hostility.(1)

Fluphenazine is exclusively metabolized by first pass metabolism by liver and excreted in both urine and stools. The peak plasma concentration occurs within the first 24 hours after intramuscular injection. Onset of action is within 24- 72 hours and the effect of drug on antipsychotic symptoms become significant between 48- 96 hours. The serum half life is approximately 7- 10 days.(2)

Serious side effects reported with intramuscular fluphenazine are feeling of restlessness, mask like facial expression, greatly increased saliva, tremors, unusual mental/mood changes, confusion, unusual dreams, frequent urination or difficulty urinating, vision problems, weight change, swelling of feet/ankles, fainting, skin discoloration, butterfly shaped facial rash, joint pain, seizures.(3)

Extrapyramidal symptoms include pseudoparkinsonism, dystonias, akathesias, tardive dyskinesias and in severe cases neuroleptic malignant syndrome.(4). Most often these extrapyramidal symptoms are reversible; however they may be persistent. 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. (5).

Conclusion

Fluphenazine, an antipsychotic belonging to phenothiazine group, is used in many psychiatric conditions. Studies on its use in pediatric age group are almost non-existing. Considering such a large side effect profile, some of which are life

threatening including neuroleptic malignant syndrome, its unauthorized use should be discouraged in undiagnosed psychiatric conditions in children. A lot of further studies and research is needed for its recommendation in pediatric age group.



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