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A CASE REPORT ON HALOPERIDOL INDUCED EXTRA PYRAMIDAL SYMPTOMS

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ABSTRACT

Dystonias refers to a syndrome of involuntary sustained or spasmodic muscle contractions involving co-contraction of the agonist and the antagonist. The movements are usually slow and sustained and they often occur in a repetitive and patterned manner however they can be unpredictable and fluctuate The frequent abnormal posturing and twisting can be painful and the functional impact of dystonia can vary from barely noticeable to severely disabling The options to medically manage dystonic movements have traditionally been 4 fold they consist of rehabilitative therapies, oral medications, neurochemolytic interventions surgery. Here we report a case of 18 year old male patient patient developed dystonia after oral administration of haloperidol for anxiety After 2 days patient developed muscle stiffness and reduced movements The patient was treated with clonazepam and sertraline showed gradual improvement in clinical condition Hence physicians should evaluate the patient condition physically and economically Primary management includes proper diagnosis discontinuation of offending drugs reduction of risk factors and supportive medical management.

KEYWORDS: Haloperidol, Dystonia, Extrapyramidal symptoms.

INTRODUCTION

Extrapyramidal symptoms are archetypically associated with the extrapyramidal system of the brain's cerebral cortex. When such symptoms are caused by medications or other drugs, they are also known as extrapyramidal side effects. The symptoms can be acute or chronic. These extra pyramidal symptoms are caused among the people by antipsychotic drugs.

Haloperidol is a typical antipsychotic which acts by antagonizing dopamine D1 and D2 receptors in brain and inhibits the release of hypothalamic and hypophyseal hormones. The main adverse effects are extrapyramidal symptoms like dystonia, akathisia muscle stiffness, tardive dyskinesia and common symptoms.

It has numerous FDA approved and off -label clinical uses like tourette syndrome, severe behavioral disorders in children, hyperactivity, acute mania, chemotherapy induced nausea and vomiting and agitation associated with psychiatric disorders.

CASE REPORT

A 18 year old male patient admitted to the hospital with complaints of dystonic posturing face since 2 days and anxiety. He had history of going to college develops fear and anxiety. He went to a local hospital and consult a psychiatrist The patient had given with T.Haloperidol 0.25mg OD and T.Fluoxetine 20 mg BD Initially the patient had developed involuntary neck movements On examination patient was found to be conscious oriented and vitals found to be BP-120/80 mmHg, PR-76/min, SpO2-100%, GRBS-116mg/dL. All his blood investigations found to be normal except sodium level (133 mg/dL) eosinophils (12%) and polymorphs (85%). He was treated with T.clonazepam 0.5 mg HS and T.Sertraline 25mg OD and the offending drug haloperidol were stopped At the time of discharge he was found to be symptomatically better. The patient consent was taken for publication of the report.

DISCUSSION

Haloperidol is a typical antipsychotic which acts by antagonizing dopamine D1 and D2 receptors in the brain which depresses reticular activating systems and inhibits release of hypothalamic and hypophyseal hormones. The main adverse effects are extrapyramidal symptoms like akathisia, dystonia, muscle stiffness tardive dyskinesia and common symptoms including anticholinergic effects, sedation, weight gain, erectile dysfunction.

Dystonia are the involuntary muscle contractions that cause repetitive or twisting movements. the condition can be mild or severe. Dystonia belongs to the extrapyramidal symptoms. The common extrapyramidal symptoms are akathisia, tardive dyskinesia, dystonia, neuroleptic malignant syndrome. The frequent abnormal posturing and twisting can be painful. Dystonia can be classified according to the following characteristicslike:

- Age of onset
- Etiology

- Anatomic distribution

The common types of dystonia are;

- Cervical dystonia -It is the intermittent spasm of neck muscles or abnormal head movements occur because of contractions of the sternocleidomastoid, trapezius and posterior cervical muscles.
- Upper Limb dystonia -It causes cramping and posturing of the elbows hands, and fingers that lead to the inability to perform certain occupational tasks.
- Lower limb dystonia-It may occur in stroke or dystonia-parkinsonism syndrome and lead to painful positioning of the leg, impaired gait and altered bone development.
- Oromandibular and lingual dystonia-They are grouped together because of their possible co-existence.
- Dystonia musculorum deformans-It is the term used to describe a generalized form of dystonia that involves the trunk and limbs.
- Tardive dyskinesia-It is the common complication of long -term antipsychotic drug treatment due to dopamine receptor antagonism.

The common drugs that cause dystonia are dopamine antagonists, metoclopramide, carbamazepine, risperidone, sodium valproate, lithium, amphetamines, anti epilepticus, levodopa etc.

The various laboratory studies that are considered in the evaluation of dystonia are liver function test, ceruloplasmin level, blood copper level MRI and CT scanning are especially important among the pediatric population and may identify hypoxic, hemorrhagic or tumorous lesions.

Rehabilitative Therapy: Dystonic movements are often exacerbated or triggered by voluntary or intentional movements of the same or other body parts. Physical therapy techniques (eg. massage), slow stretching and physical modalities (eg-ultrasonography, biofeedback) are sometimes helpful in persons with focal or regional dystonias. Various psychiatric therapies and modalities used for the treatment of dystonia include relaxation training, sensory stimulation biofeedback, transcutaneous electrical nerve stimulation and percutaneous dorsal column stimulation. Occupational therapies is an important for proper positioning and seating in patients whose mobility is impaired. Speech therapies can offer training and communication aids to patients with oromandibular or laryngeal dystonia Vocational

rehabilitation may aid individuals in jobretraining or in adapting to the workplace.

Pharmacologic Therapy: Medications can be somewhat effective in controlling dystonic movements. Systemic medications that benefits about one third of patients which include cholinergics, benzodiazepines antiparkinsonism drugs anticonvulsants, baclofen. Doses should be slowly increased over the course of weeks or months until the therapeutic benefitis optimized or until adverse effects occur. Baclofen given intrathecally by an implanted pump is very effective in certain types of dystonia. Neuro Chemolysis of dystonic musclesis another important therapeutic option. Deep vein stimulation procedure is useful in patients with primary dystonia such as generalized DYT1 dystonia.

CONCLUSION

Dystonia by use of typical antipsychotic is the major adverse event. Hence physicians should evaluate the patient's condition inorder to prevent the progression of the adverse event. Although the patient gets recovered after stopping the offending agent and need follow up whether any recurrence.

CONFLICTS OF INTEREST

The authors have obtained the necessary patient consent forms where the patients have given their approval for participation in the investigation, followed by representation in the concerned article. The patients do understand that the authors will ensure that their identities won't be revealed.

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