Research Article

Chlorpromazine Induced Skin Pigmentation - A Case Report

Krishnapriya Raj, Madathil Shinu Mery Iype, Lakshmi R*
Department of Pharmacy Practice, Amrita School of Pharmacy, Kochi, Amrita Vishwa Vidyapeetham, Amrita University, India.
***Corresponding author's E-mail:** lakshmir@aims.amrita.edu

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ABSTRACT

Chlorpromazine is a low-potency typical antipsychotic drug, which is indicated for the treatment of acute psychosis and chronic psychosis which including schizophrenia and the mania of bipolar disorder. Chronic treatment with high dose of chlorpromazine is reported to cause pigmentation. Here we are presenting a case report of 17 years old female having recurrent depressive disorder with psychotic features for which chlorpromazine was initiated for sedation purposes, following which she was found to develop skin pigmentation after a period of 3 months. Dermatological consultation was taken and confirmed to be drug induced pigmentation.

Keywords: Chlorpromazine, skin pigmentation, case report.

INTRODUCTION

Chlorpromazine is a low-potency typical antipsychotic drug, used in the treatment of both acute and chronic psychosis, including schizophrenia and the manic phase of bipolar disorder. Chlorpromazine has also been used in porphyria and as part of tetanus treatment. It still is recommended for short-term management of severe anxiety and psychotic aggression. Resistant and severe hiccups, severe nausea/emesis and preanesthetic conditioning are other uses.[1, 2]

In some cases, chlorpromazine-induced pigmentation of the skin is irreversible in nature, 1 whereas some studies indicate that it is reversible completely and that chlorpromazine can be replaced with other neuroleptics or other phenothiazine class of drugs without risk of recurrence of pigmentation.[1, 3] Chronic treatment with 500 mg/day or more of chlorpromazine is known to cause pigmentation. The prevalence in chronic, hospitalized patients is reported as 1.0% to 2.9%.[4]

CASE HISTORY

It is the case of a 17 years old female, she have recurrent depressive disorder with psychotic features. Premorbidly well-adjusted and had reduced interaction with parents for past 6 months and frequent anger outburst towards parents. She had similar episodes of low mood and decreased interaction in the past. In our study the patient had violent outbursts and behavioural issues for which chlorpromazine was initiated for sedation purposes, following which she was found to develop skin pigmentation after a period of 3 months. Dermatological consultation was taken and confirmed to be pigmentation secondary to chlorpromazine.

Medications received during hospital stay

Patient received T. lithium carbonate (400mg) and T. sodium valproate for her mood symptoms. T. Olanzapine (10mg) was added for her psychotic symptoms and T. Trihexyphenidyl (2mg) was added to prevent extra pyramidal symptoms. T. Chlorpromazine 400mg (TID) was added for the management of restlessness. Patient got better in the course of stay and discharged.

DISCUSSION

Chlorpromazine is an aliphatic phenothiazine antipsychotic which blocks postsynaptic mesolimbic dopaminergic receptors in the brain5, 6 inhibits a strong alpha-adrenergic blocking effect and depresses the release of hypothalamic and hypophyseal hormones; depresses the reticular activating system, thus affecting basal metabolism, body temperature, wakefulness, vasomotor tone and emesis.[7, 8] The drug is used for the treatment of Behavioural problems, bipolar affective disorder and hyperactivity. The side effects depend upon the dosage of therapy. Most commonly seen side effects are dermatological reactions which include dermatitis, skin photosensitivity, skin pigmentation (slate gray). Other common ADRs include eosinophilia, hemolytic anemia, immune thrombocytopenia, leukopenia, corneal changes, epithelial keratopathy and retinitis pigmentosa.

A similar case report of chlorpromazine-induced skin pigmentation was found in 2007 with short-term use in a patient with bipolar disorder. In that case, the patient had no history of prior exposure to chlorpromazine or of medical illnesses and biochemical investigations revealed no abnormalities. She was still mildly euphoric and had insomnia for which chlorpromazine was continued at the same dosage. Chlorpromazine was replaced with Tab. Olanzapine, 5 mg, OD and raised the dose to 20 mg/day. In this patient at the time of drug institution, there was no evidence of skin pigmentation or history of

dermatologic problems. She had no history of allergy or hypersensitivity to any other drugs or foods.[9]

In our patient, physical examination showed normal vitals: Pulse Rate - 78/min, Blood Pressure - 120/80 mm of Hg and Respiratory Rate- 22/ min. Stopping the offending drug and conservative management is the focus of treatment in both skin conditions discussed above.

One should be cautious enough during initiation of drugs with potential photo allergic properties. The treatment can be started at a lower dose and may be built up later, if the patient tolerates the doses. Starting at a higher dose may be a potential risk factor. In our patient, the chlorpromazine is started at a higher dose (400 mg/day) may have been one of the factors contributing to the development of a serious photo allergic reaction.[10]

CONCLUSION

Patients should be counselled with adequate information regarding the side effects of chlorpromazine and advised to consult physician or pharmacist upon experiencing any side-effects. Despite the availability of newer antipsychotic drugs chlorpromazine is still widely used in many parts of India, particularly for patients in whom marked psychomotor excitement and sleep disturbances are present. Thus clinicians need to be aware of the adverse effects of chlorpromazine.

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