Levosulpiride-induced Hyperprolactinemia

Sir,

Dyspepsia is a common concern of patients in both the hospital and outpatient settings. For symptomatic treatment of this, there are many over-the-counter drugs available in our country. Levosulpiride is commonly used for dyspepsia, since this became available as a new prokinetic agent in Pakistan without a prescription.

Previously, prokinetic agents like domperidone and metoclopramide have been reported to cause hyperprolactinemia as one of their unavoidable side effects by blocking central D2 dopamine receptors at the hypothalamus and anterior pituitary level.[1] However, this side effect of these old drugs in causing hyperprolactinema was moderate, usually in the range of <100 ng/mL. Recently, a few cases have been reported with levosulpiride, causing increased serum prolactin in the range of >200 ng/mL.[2]

Here, we present two patients who were diagnosed with levosulpiride-induced hyperprolactinemia with their prolactin level normaliSing with discontinuation of this drug. The first patient was a 40- year woman referred to Endocrinology Unit for the evaluation of galactorrhoea. Her serum prolactin was reported as 49.40 ng/mL (normal range: 4-18.5 ng/mL). The second patient was a 28-year woman who presented with a history of irregular periods for a few months, serum prolactin checked by her primary physician was 109.5 ng/mL, who then referred her to Endocrinology Unit for further workup and management.

On detailed history taking, both admitted that they had been experiencing acid peptic symptoms and were taking Levosulpiride tablets of 25 mg and 50 mg, two to three times per day, respectively for the last 3-4 months prior to their presentation. They were advised to stop this agent and follow-up in the clinic after 1 month with repeat serum prolactin level. After one month, both reported improvement in their initial symptoms and repeat prolactin levels were 24 ng/mL and 40.40 ng/mL, respectively. Levosulpiride acts *via* antagonising central D2 dopamine receptors and show its therapeutics as well as adverse effects like hyperprolactinemia by that mechanism.

Data regarding levosulpiride-induced hyperprolactinemia is scarce. Lozano *et al*. in his prospective study of 342 participants has reported galactorrhoea in 26.7% patients on levosulpiride.[3] Our intent in sending this communication is to help create awareness amongst health professionals regarding the association between levosulpiride and raised serum prolactin levels. In the management process, the first step should be to discontinue levosulpiride, repeat prolactin level in a few weeks; and if prolactin levels normalise, then avoid unnecessary costly workup.

CONFLICT OF INTEREST:
Authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:
BD: Came up with the idea to write this letter and designed this letter.
SN: Reviewed it critically and both authors approved the final version to be published.

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