

Long Term Abuse of Domperidone Causing Hyperprolactinemia

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Abstract: MDR Kochs patient on AKT since September 2019 along with proton pump inhibitor+Domperidone sustained release tablets since 9 months twice a day for gastritis and nausea, vomiting. Over a period of time kochs was getting healed however patient started complaining of increase in weight and breast since April 2020 .Patient's TSH level was 5.63uIU/ml and prolactin level -76.97 ng/ml(normal range forTSH-0.45-4.5 uIU/ml and prolactin level -5.18-26.53 ng/ml). As a chest physician I started looking for AKT or any other drug induced causes of hyperprolactinemia. Patient refused to stop domperidone and started thyroid supplement.

Keywords: domperidone, hyperprolactinemia, medicine, adverse drug reactions

1. Introduction

However later milk discharge from nipples in June 2020 started. Pt visited gynaecologist advice to take T. gabargolin for Hyperprolactinemia as prolactin level was 94.4 ng/ml. In view of vomiting and unable to tolerate medicine gabargolin was stopped. Pt was again counseled to stop Domperidone which could increase prolactin level which patient was fearful to stop it for vomiting. Pt was given ondasetron for vomiting & Domperidone was stopped for 4-6weeks .In 4-6 weeks swelling over both breast was reduced & prolactin level reduced to normal level 16.4

Date	21-4-2020	27-6-2020	31-8-2020	14-10-2020
Serum Prolactin levels Ng/ml	76.97	94.44	80.7	16.0

2. Mechanism of Action

Prolactin is the hormone that stimulates the cells in female's breast to produce milk. Domperidone increase prolactin secretion indirectly by interfering with the action of dopamine in pituitary gland. Dopamine action is to decrease the secretion of prolactin secretion by the pituitary gland .Due to D2 receptor Blockade, Domperidone causes hyperprolactinemia and can suppress the secretion of Gn RH from hypothalamus in turn suppress the secretion of FSH & LH resulting in hypogonadism. Hyperprolactinemia in 15% of female causes mammoplasia, mastodynia, galacctorhea and amenorrhea .In males also hyperprolactinemia can cause gynaecomastia, galactorrhea & low libido, erectile dysfunction & impaired spermatogenesis. Rare reactions are cardiac arrhythmias, prolonged QT intervals & sudden cardiac death.

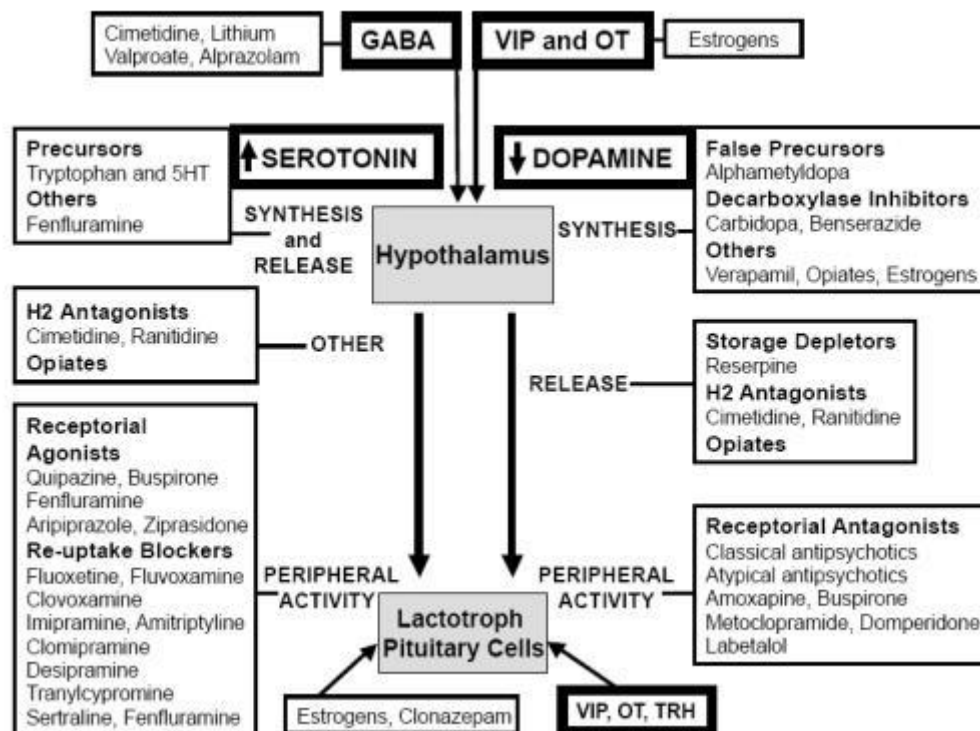


Table 2: Drugs inducing sustained hyperprolactinemia

Antipsychotics	<i>Typical</i>	Haloperidol Chlorpromazine, Thioridazine, Thiothixene
	<i>Atypical</i>	Risperidone, Amisulpride Molindone, Zotepine
Antidepressants	<i>Tricyclics</i>	Amitriptyline, Desipramine Clomipramine Amoxapine
	<i>SSRI</i>	Sertraline, Fluoxetine, Paroxetine
	<i>MAO-I</i>	Pargyline, Clorgyline
Other Psychotropics		Buspirone Alprazolam
Prokinetics		Metoclopramide, Domperidone
Antihypertensive		Alpha-methyldopa, Reserpine, Verapamil
Opiates		Morphine
H ₂ Antagonists		Cimetidine, Ranitidine
Others		Fenfluramine, Physostigmine Chemotherapics

Note: Only drugs with demonstrated ability to induce hyperprolactinemia above the normal range have been included in this table.

3. Conclusion

Domperidone usage for more than 10-12 weeks can cause Hyperprolactinemia and other hormone imbalance .

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