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The awareness of serotonin syndrome regarding combinations of serotonergic agents in the comprehensive palliative care center

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Background and Aim: Serotonin syndrome results from the elevated serotonergic activity in central and peripheral nervous system which is characterized with mental status changes, neuromuscular hyperactivity, and autonomic instability in the patient. It is a rare, yet a dangerous complication of concomitantly used serotonergic medications.¹ Terminal stage cancer patients usually receive polytherapy for the prevention or treatment of various symptoms such as pain, nausea and vomiting and depression. Therefore, drug-drug interactions (DDIs) between serotonergic drugs and opioids are possible. Our aim is to highlight this issue by presenting our treatment approach to a cancer patient who received a polytherapy in our palliative care unit.

Case summary: 69 years old male patient who was diagnosed lung cancer one year ago was admitted to palliative unit with diarrhea, vomiting, nausea, nutrition problems and pain complaints. His therapy included fentanyl, escitalopram and metoclopramide (Table 1). His order was reviewed by a clinical pharmacologist and multiple serotonergic agent use was noticed. We detected a major interaction between fentanyl and escitalopram and moderate interaction between metoclopramide and escitalopram regarding serotonin syndrome by screening several evidence-based databases.^{2,3,4} However we decided not to change the treatment plan and closely observe the patient after a benefit versus risk assessment. No symptoms of serotonin syndrome was detected.

Conclusion: The drug groups which is frequently preferred in palliative care units can lead to enhanced serotonergic activity (Table 2). Because the incidence of the interaction appears rare (less than 1/1000)⁴, a risk versus benefit assessment led us to continue with the existing drugs, with a close-monitoring of the patient regarding possible serotonin syndrome findings. However, this decision should be given on a case-by-case basis. Clinicians should be aware of the serotonin syndrome and avoid unnecessary combinations of serotonergic agents in palliative care patients.