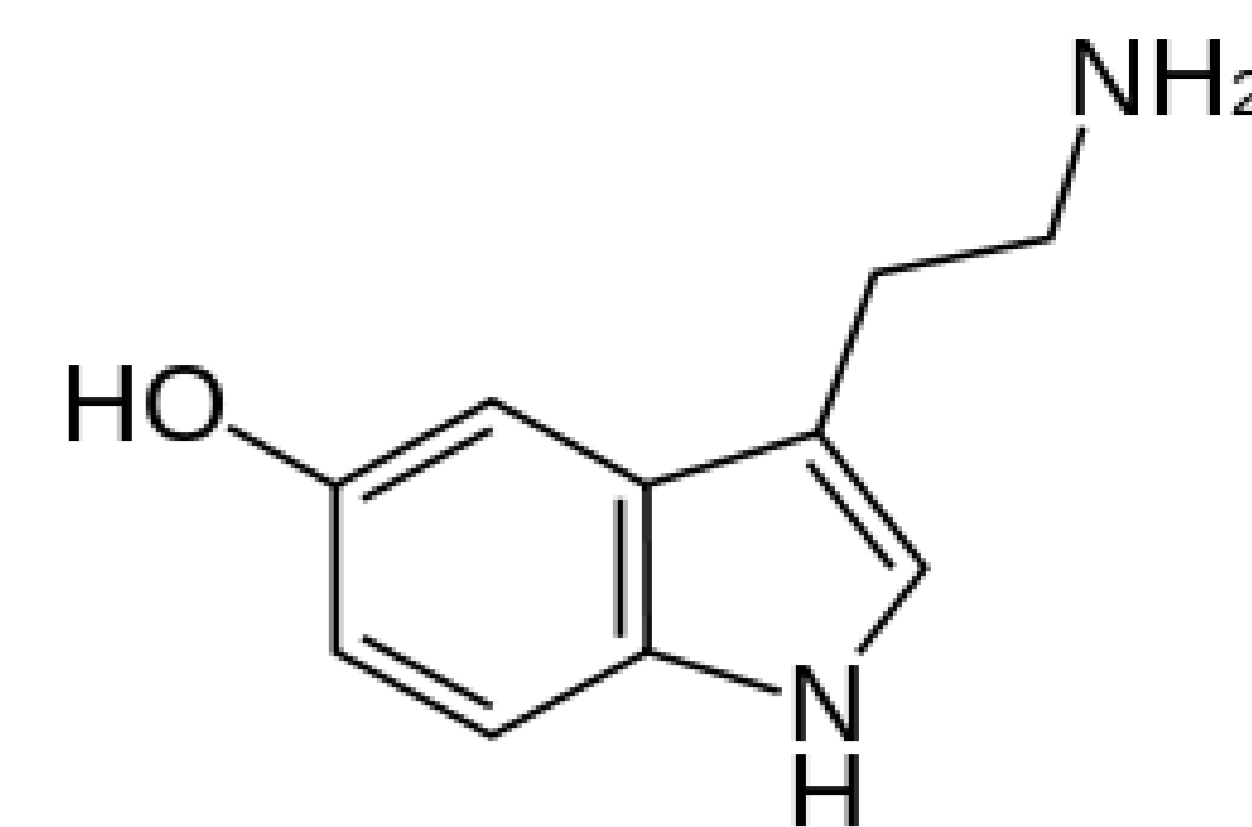


LINEZOLID AND SEROTONIN SYNDROME

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BACKGROUND

Serotonin syndrome (SS) is a potentially life-threatening clinical condition associated with use of drugs that promote serotonergic neurotransmission. It is characterized by mental, autonomic and neuromuscular symptoms. Incidence is unknown and frequently underdiagnosed.

It is unknown how to predict who will develop it, so combinations of serotonergic agents should be avoided. It is essential to maintain a high clinical suspicion and knowledge of medications that can cause it. In 2016, FDA issued a statement that included a list of drugs that increase serotonin. One of these drugs is linezolid, an antibiotic that is not usually associated with serotonergic effects.

PURPOSE

Study frequency and relevance of this interaction between linezolid and serotonergic agents.

METHODS

Retrospective study of patients admitted under treatment with linezolid during 2017. Pharmacotherapeutic histories were analyzed for all patients who received treatment with linezolid in electronic prescribing software (Farmatools®). In those patients in whom concomitant use of serotonergic agents was detected, clinical histories were checked to see if they had been diagnosed with SS.

RESULTS

We found 77 patients treated with linezolid, 11 (14%) had concomitant prescriptions with serotonergic agents. In no case were more than two serotonergic drugs used at the same time. The most frequent interaction was with **fentanyl** (36%), followed by **tramadol** (27%); other less frequent were pethidine, sertraline, venlafaxine and citalopram. By therapeutic group, the most frequent interaction was with opioids (72% of patients with interaction), the rest with antidepressants. In no case SS was diagnosed.

CONCLUSIONS

Number of patients with concomitant prescriptions of serotonergic agents was low and for most part of them, risk was acceptable due to the lack of a therapeutic alternative. Incidence of SS can not be determined by the reduced data, although it can be estimated as low, since no case has been presented.

The likelihood of experiencing SS has increased in recent years as a result of extensive use of drugs with serotonergic actions. However, it is possible that it occurs more frequently with other medications, since linezolid is an antibiotic for hospital use and usually restricted, which requires validation of a pharmacist, who can detect this type of interaction.

CONFLICT OF INTEREST: Nothing to disclose. **ACKNOWLEDGEMENTS:** None.

