Efficacy and safety of appetite-stimulating medications in the inpatient setting

Numerous health conditions, such as congestive heart failure, chronic obstructive pulmonary disease, chronic kidney disease, and cancer can lead to loss of appetite. This can result in weight loss and ultimately cachexia. Although this usually happens chronically over a few weeks or months, acutely ill hospitalized patients may experience loss of appetite and weight loss more rapidly.

A study published in the ***Annals of Pharmacotherapy*** compared three therapies used to promote weight gain in the outpatient setting—dronabinol, megestrol and mirtazapine—for the stimulation of appetite in hospitalized patients (Howard ML, Hossaini R, Tolar C, Gaviola ML: Efficacy and safety of appetite-stimulating medications in the inpatient setting. ***Ann Pharmacother*** 2019; 53:261–267).

Study methods

This retrospective cohort study was conducted in a 320-bed urban community teaching hospital between Jan. 1, 2014 and Apr. 30, 2017. All patients age 18 or older who were admitted during the study period and who received at least one dose of dronabinol, megestrol, or mirtazapine (the appetite-stimulating medications listed on the hospital formulary) were included. Any patients who received appetite stimulants or who used dronabinol, megestrol, or mirtazapine for other indications prior to admission were excluded.

Patients were assigned to one of four groups, depending on the type of drug they received: dronabinol, megestrol, mirtazapine, or multiple. Nutritional intake and laboratory results related to nutrition were collected, as well as type of diet, percentage of meals consumed each day, and adverse effects.

The primary outcome was change in meal intake between drug initiation and discontinuation or discharge (whichever occurred first). Secondary outcomes included documented improvement in appetite, change in weight and various laboratory parameters, and incidence of adverse effects.

Results

Thirty-eight patients met inclusion criteria, and mirtazapine was most commonly used (42%). The mean doses were: 2.91 mg dronabinol, 180 mg megestrol, and 11.1 mg mirtazapine.

There was no significant difference between the groups in terms of mean chan in meal intake, weight, albumin, or documented improvement in diet. Within groups, each agent showed improvement i percentage meal intake. The mean change meal intake from initiation of the drug to discontinuation was 17.12%. Almost half (48%) of the patients experienced improvement in diet after the start of medications. No serious adverse effects we observed.

Conclusion

This study was the first to compare the thr therapies for appetite stimulation in the inpatient setting. It concluded that, in inpatients, there appears to be no differen in effectiveness between dronabinol, megestrol, and mirtazapine, and they may have the potential to improve meal intake with no serious side effects.

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Commentary **Marian Gaviola, MD** Fort Worth, Texas U.S.A.

IN THIS RETROSPECTIVE STUDY summarized above (I am the corresponding author), we compared the efficacy and safety of dronabinol, megestrol and mirtazapine for the stimulation of appetite in hospitalized patients. We found no significant difference between the groups in terms of mean change in meal intake, weight, albumin, or documented improvement in diet. Each agent showed improvement in percentage meal intake.

Appetite-stimulating medications are commonly used in patients with cancer or HIV/AIDS. In the inpatient setting, we often come across issues with decreased appetite, and we have observed nonstandard uses of different medications with the hope of improving this problem. There is very limited information available on which medications to use in this setting, and so we set out to find out if any of these medications work better than others, and whether their use is associated with significant adverse effects.

While we found no significant difference in appetite stimulation, it is still important to determine which medication causes the least harm. Medications such as megestrol and mirtazapine have a laundry list of reported adverse effects which may limit their use in hospitalized patients, although we saw no increased adverse events with their use in our study.

Dronabinol is a relatively new medication on the marke and limited information is available. While we saw no difference in outcomes or adverse events with the use of dronabinol, there may be a potential place for its use in the hospital setting, since it might be associated with the least number of adverse effects.

Dronabinol appears to have a growing role in the stimulation of appetite in hospitalized patients, especiall as patients and physicians become more comfortable with cannabinoids and learn more about their effects. Some physicians are hesitant to use dronabinol in general due to limited experience, especially in the inpatient setting.

We do not want to overstate the results and value of o study. We realize the study had limitations but we hope tha physicians will start looking into the use of dronabinol and other cannabinoids because the current options for appeti stimulation in inpatients are quite limited.

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