Should we use appetite stimulants for malnourished elderly patients?

Evidence-based answer

Probably not. Only 1 appetite stimulate, megestrol acetate oral suspension (Megace) at 400 mg or 800 mg daily, has been studied in this population. The data show only limited benefit, mixed outcomes, and potential harm (strength of recommendation: B, based on small, randomized, controlled trials).

Clinical commentary

Good advice for a common problem

This question hits home for me. I recently sat down with the husband, and main caregiver, of a woman with advanced dementia. The woman eats very little and is losing weight despite her husband's great efforts at encouraging her to eat. Under the care of another physician, she had been given megestrol acetate and there had been some improvement. Her visit to my office was an opportunity to continue an ongoing conversation with her husband about his wife's overall decline, her advancing dementia, and the sorrow he was feeling over her failing health.

Should we use appetite stimulants in malnourished elderly patients? "Probably not." That is a good place to start to avoid harm to our most frail, declining, elderly patients for whom we care. That leaves open flexibility to patient, family, and caregiver preferences, but reminds us that the most important part of caring for these patients and their families is clear, compassionate communication regarding goals and expectations.

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Evidence summary

Although a number of studies have evaluated various appetite stimulants—megestrol, dronabinol (Marinol), cyproheptadine (Periactin), thalidomide (Thalomid), pentoxifylline (Pentoxil/Trental), nandrolone decanoate (Deca-Durabolin), oxandrolone (Oxandrin), and corticosteroids—in patients with AIDS, anorexia cachexia syndrome, and advanced cancer, only megestrol has been studied in malnourished elderly patients.

Two studies, mixed results

One placebo-controlled randomized clinical trial studied 45 malnourished patients who were recently discharged from an acute care hospital to a nursing home. The patients (predominately female, with a mean age of 83) were randomized into 4 treatment arms (placebo or megestrol 200 mg, 400 mg, or 800 mg daily) and followed for 63 days.

Only those receiving megestrol (400 mg or 800 mg daily) demonstrated a sta-
tistically significant increase in patient appetite and a dose-responsive increase in prealbumin level at the 20 day interim analysis (7.5 and 9.0 mg/dL, respectfully). But at the final assessment (63 days), only the 400-mg dose maintained a statistically significant increase in prealbumin over placebo. However, there was no significant improvement in serum albumin or clinical endpoints (weight, functional status, or health-related quality of life).\textsuperscript{3}

In contrast, an earlier Veterans Administration (and predominantly male) study showed 13/21 of those treated with megestrol (800 mg daily for 12 weeks) noted weight gain (≥4 lb sustained at 3 months post-treatment), compared with 5/23 of those receiving placebo (number needed to treat [NNT]=2.5).\textsuperscript{2} Of note, only 9/26 patients had sustained weight gain in the megestrol group at the 12-month endpoint post-treatment, comparable with 7/25 in the placebo group.

Some small, but statistically significant, score improvements were noted during the treatment period in appetite and enjoyment of life; however, no differences were noted in scores on the more widely accepted Geriatric Depression Scale.

**Adverse effects**

As in all therapeutic interventions, benefit must be balanced against risk. The Megace ES package insert notes the following potential adverse effects: diarrhea, cardiomyopathy, palpitation, hepatomegaly, leukopenia, edema, paresthesia, confusion, convulsion, depression, neuropathy, hypesthesia and abnormal thinking, thrombophlebitis, pulmonary embolism, and glucose intolerance.\textsuperscript{3}

To date, the prevalence rates of these potential adverse effects have only been studied in patients with AIDS. No data reflecting potential rates in elderly patients have been published.

**Recommendations from others**

The American Geriatric Society\textsuperscript{4} made 3 comments on appetite stimulation:

1. There are no FDA-approved drugs available for the promotion of weight gain in older adults.
2. A minority of patients receiving mirtazapine report appetite stimulation and weight gain.
3. All drugs used for appetite have substantial potential adverse events.

We found only 1 national guideline on this topic: Unintentional Weight Loss in the Elderly from the University of Texas School of Nursing.\textsuperscript{5} The guideline indicates that drugs should not be used as first-line intervention in the elderly, as there has been inadequate testing in this population. Benefits are restricted to small weight gains without indication of decreased morbidity or mortality, improved quality of life, or improved functional ability.

**Acknowledgments**

The opinions and assertions contained herein are the private views of the author and not to be construed as official, or as reflecting the views of the US Air Force Medical Service or the US Air Force at large.

**References**


\textsuperscript{1} The only national guideline on weight loss in the elderly does not recommend medication as the first-line treatment.