

EDITORIAL

Progesterone: a “weight watcher’s pill” for reproductively aging women

Progressive weight gain with advancing years is accepted almost as an aging “norm.”^{1,2} Both changes in energy expenditure and alterations in dietary intake are suggested as possible mechanisms^{3,4} contributing to the progressive weight accrual of aging. Indeed, a decrease in the resting metabolic rate (RMR) in postmenopausal versus premenopausal women is demonstrated,⁴ which supports the former theory. An altered endocrine milieu, especially deficiency in circulating estrogen, as seen in the postmenopausal years, is variously cited as a mechanism predisposing women to the weight gain and increasing adiposity in women.²⁻⁵ Evidence of increasing visceral obesity with transgression across the reproductive age spectrum is available.^{4,5} Estrogen deficiency again is proposed as a mechanism contributing to this phenomenon. This latter concept is supported, albeit inconsistently, by evidence of a blunting of this age-related weight gain in postmenopausal women undergoing hormone therapy.⁶⁻⁹ These latter effects of hormone therapy have also been preferentially attributed to influences of the estrogen component of treatment.

Discussions regarding potentially contributory mechanisms to the altered metabolic state in the postmenopausal period seldom focus on a possible role for progesterone deficiency. This latter interpretation is of interest, especially because the thermogenic effects of endogenous progesterone have long been appreciated in the context of reproduction. Luteal phase increases in core body temperature are well demonstrated in ovulatory menstrual cycles as well as in association with progesterone-only contraceptive use.¹⁰ Conversely, the use of estrogen alone has been shown to lower the core body temperature; these latter effects of the estrogenic component are negated by progesterone in a combined pill.¹¹

In the current issue of *Menopause*, Cagnacci et al¹² evaluated the influence of thermogenic effects of an

intermittent exogenous progesterone (nomogestrol acetate, 5 mg/day × 10 days/month) regimen on the RMR and body composition in 36 perimenopausal women during a 12-month period in a randomized study. Although the authors demonstrate a significant increase in the RMR in patients receiving nomogestrol acetate, this finding was no longer appreciable at 12 months. More importantly, at 12 months, an impressive (1 kg) and statistically significant reduction in the fat mass accrual and lowering of body mass index were noted among patients receiving the progesterone alone compared with the controls. This study supports the concept for a role of progesterone deficiency as a possible mechanism contributing to the progressive accrual of unwelcome adiposity that accompanies reproductive aging. These potential beneficial effects of exogenous progesterone therapy merit further exploration, especially in the post-Women’s Health Initiative era, as the medical community strives to better appreciate the “pros” of hormone therapy in postmenopausal women.

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