HANSEN CLINIC

Six-month Oral Dehydroepiandrosterone Supplementation in Early and Late Postmenopause

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From Abstract:

The adrenal production of the delta 5-androgens, dehydroepiandrosterone (DHEA) and its sulfate ester dehydroepiandrosterone sulfate (DHEAS), declines linearly with aging. The evidence that DHEA or DHEAS administration may alleviate some of the problems related to aging has opened new perspectives for clinical research.

Circulating DHEA, DHEAS, 17-OH pregnenolone, progesterone, 17-OH progesterone, allopregnenolone, androstenedione, testosterone, dihydrotestosterone, estrone, estradiol, SHBG, cortisol, luteinizing hormone, follicle stimulating hormone and beta-endorphin levels were evaluated monthly and a Kupperman score was performed.

Levels of DHEA, DHEAS, androstenedione, testosterone and dihydrotestosterone increased progressively from the first month of treatment. Levels of estradiol and estrone significantly increased after the first/second month of treatment. Levels of SHBG significantly decreased from the second month of treatment only in overweight late postmenopausal women, while the other groups showed constant levels.

Allopregnanolone and plasma beta-endorphin levels increased progressively and significantly in the four groups, reaching values three times higher than baseline. Levels of cortisol and gonadotropins progressively decreased in all groups.

Treatment with DHEA was associated with a progressive improvement of the Kupperman score in all groups, with major effects on the vasomotor symptoms in the early postmenopausal women.

In conclusion, the present findings confirm that DHEA supplementation produces physiological and supraphysiological modifications in steroid milieu and adrenal function. The beneficial effects of DHEA on the quality of life and in reverting the aging process may be related to changes in the release of adrenal products and/or peripheral steroids, with an increase in anxiolytic (allopregnanolone), anabolic (androstenedione, testosterone, dihydrotestosterone) and estrogenic (estrone, estradiol) molecules, a beneficial decrease in Cortisol and increase in pituitary β-endorphin production.