DEHYDROEPIANDROSTERONE (DHEA) AND INTRACRINOLOGY

Abstrak:

Dehydroepiandrosterone (DHEA) is a prohormone secreted in large amounts by the adrenals in humans. It is secreted in larger quantities than cortisol and is present in the blood at concentrations only second to cholesterol. DHEA is transformed into androgens and/or estrogens in peripheral target tissues, thus permitting all androgen-sensitive and estrogen-sensitive tissues to make locally and control the intracellular levels of sex steroids according to local needs. This new field of endocrinology has been called intracrinology. In women, after menopause, all estrogens and almost all androgens are made locally in peripheral tissues from DHEA which indirectly exerts effects, among others, on bone formation, adiposity, muscle, insulin and glucose metabolism, skin, libido and well-being. In men, where the secretion of androgens by the testicles continues for life, the contribution of DHEA to androgens has been best evaluated in the prostate where about 50% of androgens are made locally from DHEA. The new field of intracrinology or local formation of sex steroids from DHEA in target tissues has permitted major advances in the treatment of the two most frequent cancers, namely breast and prostate cancer, while its potential use as a physiological HRT could well provide a physiological balance of androgens and estrogens, thus offering exciting possibilities for women’s health at menopause.

Keyword:

intracrinology, DHEA, androgens, estrogens, menopause