

## PERSONALIZATION OF PROGESTIN COMPOUND AND OPTIMIZATION OF HORMONE DOSES

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After the publication in 2002 of the double-blind placebo randomised study known as WHI study, many concerns arose on the safety of HRT, acronym which means the supplementation of estrogen and progestin compounds in postmenopausal women. However, the main concerns on an increased risk of breast cancer risk and cardiovascular diseases (CVD) during HRT use seem to depend on some biases of inclusion criteria of subjects to the study. Old age, obesity, and the presence of risk factors for CVD contraindicate HRT use. But the authors of WHI included in their study more than 70% of subjects with the above exclusion criteria. The further publication of WHI study aiming to evaluate the impact on health of estrogen replacement treatment (ERT) in a group of women who did not need a progestin compound supplementation, shows that ERT does not increase the risk of breast cancer and that the increased risk for CVD disappears when HRT is used by women in a range of age between 50-55 yrs. All studies aiming to evaluate if also hormonal doses lower than those used in WHI study could be capable both of improving menopausal symptoms and preventing osteoporosis, show that also lower HRT doses could exert beneficial effects on all postmenopausal symptoms and on the prevention of osteoporosis. A very low incidence of side effects dependent on hormonal exposure is associated with lower HRT doses. Therefore, the American Menopause Society recommends the use of low HRT dosage. As for progestin compounds, it is known that psychological symptoms which affect all postmenopausal women, are strictly related to the loss of estrogen and progesterone action at CNS. New progestin compounds characterized by specific binding with progesterone receptors, are capable of giving the beneficial effects of progesterone without the side effects linked to the older progestin compounds. Drospirenone, a progestin compound derived from spiro lactone, shows to exert also antimineralcorticoid activity with proved beneficial effects on some cardiovascular functions, such as reduction of blood pressure and upper adiposity distribution. However, the careful evaluation of basal menopausal symptoms could indicate the use of progestin compounds with residual androgen properties in the presence of hypo-androgenic symptoms, such as decrease of libido and asthenia. In conclusion, the modern HRT aims to personalize HRT which has to take into account the main postmenopausal symptoms affecting the woman, the use of low HRT doses and the use of new progestin compounds.