Introduction

Sex steroids have been recognized as key modulators of inflammatory and vascular activity in females, and low hormone levels may contribute to a significantly increased risk of cardiovascular mortality in menopausal women. In a novel model of care 75 healthy, perimenopausal and post menopausal women with low endogenous levels of sex steroid hormones received transdermal exogenous hormones for 12 months. In a prospective, case-controlled study (75 controls, 75 intervention), the 2 month and 12 month effects were obtained for inflammatory, cardiometabolic and quality-of-life measures.

Methods

150 women of Caucasian, Black, Native American and Hispanic ethnic descent (mean age 51.9 yrs) who met strict inclusion & exclusion criteria were enrolled and Hispanic ethnic descent (mean age 51.9 yrs) who met strict inclusion & exclusion criteria were enrolled in our prospective, case-controlled study (75 controls, 75 interventional). The 2 month and 12 month effects in our prospective, case-controlled study (75 controls, 75 interventional) were obtained for inflammatory, cardiometabolic and quality-of-life measures.

Results

Blood Pressure Was Significantly Lowered at 2 Months and Remained Lower at 12 Months.

Summary of Data (Means ± SD)

Conclusions

Dysfunction and dysregulation of endocrine/immune/ inflammatory responses in aging women affects the incidence and progression of cardiovascular disease. The Hormone Restoration Model of Care is an expansion of conventional clinical models that are focused on individualized evaluation and treatment of the hormonal milieu, and it reveals the integral role of sex steroid hormones in regulatory processing of immune and inflammatory responses. Clinical trials in perimenopause and postmenopause have demonstrated concordance with experimental data regarding hormonal factors in cardiovascular disease, likely related to differences in pharmacology of hormone therapies. By replacing the hormone that is deficient via transdermal dosing it may be possible to more closely mimic normal physiology and favorably impact cardiometabolic clinical biomarkers.

Related References

