



Menopause and Soy Isoflavones

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Abstract

According to the Indian Menopause Society's third consensus conference, India's postmenopausal women number about 43 million and are forecast to rise to 103 million by 2026. Although the average age for menopause in India is 47.5 years, there has recently been an alarming rise in premature menopause among Indian women. Menopause is experienced by nearly 4% of women in the age group of 29-34 years, and it is experienced by 8% of women in the age group of 35-39 years. Although the cause of early menopause is unknown, it is a significant public health concern because of its effect on the production of metabolic syndrome components. About the fact that HRT reduces postmenopausal risks, it is no longer prescribed for long-term usage owing to its effect on the growth of some cancers, like endometrial cancer and breast cancer, as well as its detrimental impact on cardiovascular disease. As a result, better understanding the cellular and molecular pathways involved in the pathogenesis of postmenopausal complications may contribute to new clinical therapeutic targets for their treatment. In animal models, soy isoflavones have been shown to be effective against ovariectomy (surgical menopause) and diet-induced metabolic complications; however, its effectiveness in terms of improving metabolic complications associated with postmenopausal state is largely unknown.

Introduction

Menopause is a major turning point in a woman's life. "Loss of oestrogen development due to ovarian dysfunction" is how menopause is characterised. When compared to men of comparable age, premenopausal women are more shielded from developing metabolic syndrome and its related metabolic complications, such as type 2 diabetes and cardiovascular diseases (CVD). Owing to improvements in the sex steroidal hormone profile, this defence is lacking after menopause. Since people spend about a third of their lives in the postmenopausal condition around the globe, the public health consequences of postmenopausal problems are important. According to estimates from the Indian Menopause Society's third consensus conference, India's postmenopausal women number about 43 million and could cross 103 million by 2026. These results illustrate the importance of recognising the molecular and cellular pathways that underpin the pathology of metabolic complications in postmenopausal women. The cause of increased weight gain and obesity during menopause is unknown, although it is regarded as a major public health concern around the world. Clegg also confirmed that oestrogen loss after menopause causes weight gain and fat accumulation around the hips, leading to obesity in the postmenopausal community [1-3].

Conclusion

Both experimental menopause and experimental obesity induced oxidative stress, inflammation, insulin tolerance, lipid derangements,

and hepatic steatosis when used separately and in conjunction. When ovariectomy was accompanied by a high-fat diet, the incidence of these complications increased even further, implying a synergistic role for postmenopausal status and a high-fat diet in the production of these complications. Treatment with soy isoflavones greatly decreased these metabolic complications, indicating that this natural phytoestrogen could be used to treat metabolic complications in postmenopausal women. The current research adds to the growing body of evidence that soy isoflavones have anti-oxidant, anti-inflammatory, antidiabetic, and anti-lipidemic properties. Based on the results, we can infer that women after menopause should limit their consumption of fat-rich foods, especially those who have a genetic predisposition to the production of metabolic syndrome components.

References

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Received February 23, 2021; Accepted March 10, 2021; Published March 18, 2021

Citation: Washio K (2021) Menopause and Soy Isoflavones. *Biochem Physiol* 10: 305.

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