Posters

Low glycemic load, high protein diet lessens facial acne severity
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Background – Acne vulgaris is a multi-factorial skin disorder which affects the 85-100% of the adolescent population in Western civilizations. Despite its high prevalence in the West, acne prevalence is extremely low or rare in non-westernized societies. It has been proposed that refined, high glycemic foods common in Western societies may accentuate underlying causal factors responsible for its proliferation.

Objective - To determine whether a low glycemic load diet, comprised of high levels of protein and low GI foods, can alleviate the severity of acne symptoms in young males

Design – Male acne sufferers [n=43, age=18.3 ± 0.4 (mean ± SEM)] were randomly assigned to either the dietary intervention (n=23) or control groups (n=20). The intervention diet consisted of 25% energy from protein and 45% energy from low glycemic index carbohydrates. The control group received no information about diet nor were they given dietary instruction. The efficacy of dietary treatment versus control was clinically assessed by a dermatologist using a modified Cunliffe-Leeds acne scale. The dermatologist assessed facial acne by means of lesion counts and was blinded to the subject’s group.

Outcomes - Dietary intervention resulted in a reduction in total lesion counts (-23.1 ± 4.0 lesions, P<0.001) and inflammatory counts (-16.2 ± 3.0 lesions, P<0.001). The control group also showed a reduction in total lesion counts (-12.0 ± 3.5 lesions, P<0.01) and inflammatory counts (-7.4 ± 2.5 lesions, P<0.05). However, between group analyses showed that the reduction was significantly greater in the intervention group for total counts (P<0.05) and inflammatory counts (P<0.05).

Conclusion - These data indicate that a low glycemic load diet, comprised of high levels of protein and low GI foods, significantly decreased the mean number of facial acne lesions, therefore alleviating the severity of acne symptoms. However, the multi-factorial nature of this condition is reflected in the fact that the control group also showed a decrease over time, thereby suggesting that other factors are at play.

References

Red wine polyphenols improve vascular function in postmenopausal women
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Background - Moderate red wine consumption has been shown to reduce cardiovascular disease (CVD) risk. Arteriosclerosis and elevated systolic blood pressure are independent risk factors for CVD. However, the effect of red wine and its polyphenolic components on vascular function has not been previously investigated. In this study we have investigated the effect of moderate consumption of dealcoholised red wine (DRW) and full complement red wine (RW) on vascular function in postmenopausal women.

Objectives - To elucidate whether chronic consumption of red wine and/or red wine polyphenols improves arterial stiffness and systolic blood pressure in hyperlipidaemic postmenopausal women.

Design - A randomised parallel-arm study where 45 postmenopausal women were asked to consume 400 ml of either water, DRW or RW with their evening meal for 6 weeks, following a 4-week washout. Fasting measures of haemodynamic indices and pulse wave analysis (PWA) were taken before and after intervention. Augmentation index (AIx) and augmentation pressure (AP) were measured by PWA, using SphygmoCor®, which provides an indirect index for arterial stiffness. Systolic blood pressure was measured using an automated sphygmomanometer.

Outcomes - After a six week intervention a reduction in AIx (9%; P<0.05) and in AP (12%; P<0.05) was observed within the DRW group. Systolic blood pressure was significantly improved following 6 weeks of chronic DRW consumption (-8%, P<0.05). Whereas, full complement RW had no effect on vascular function.

Conclusion - In conclusion, chronic consumption of red wine polyphenols improve central and peripheral haemodynamic indices in hyperlipidaemic postmenopausal women. The improvements in arterial stiffness and systolic blood pressure may be potential mechanisms by which polyphenols attenuate CVD risk.