In Adults with a BMI of 23-30 kg/m2 Efficacy and Safety of *Lythrum Salicaria* Extract on Body Fat Reduction

A recent study evaluated the efficacy and safety of *Lythrum salicaria* extract supplementation in reducing body fat in adults with a body mass index (BMI) of 23–30 kg/m^2.

Study

Of the 94 adults screened, 90 were randomly assigned to receive either *L. salicaria* extract or a placebo, with 45 participants in each group. Six participants withdrew for reasons unrelated to the study procedures or outcomes, leaving 84 participants (42 per group) in the per-protocol (PP) analysis. All 90 participants were included in the intention-to-treat (ITT) analysis. Baseline characteristics were generally comparable between groups, although there was an age difference in the PP population.

After 12 weeks, participants taking *L. salicaria* extract lost an average of 0.58 kg of body fat, while those receiving the placebo gained 1.43 kg. The baseline-adjusted difference between groups was −2.01 kg, with similar results in the ITT analysis. Body fat decreased in 69% of extract recipients compared with just 2.4% of placebo recipients, while median changes also favored the extract.

Although these findings suggest a short-term fat-reducing effect, the researchers emphasized that the actual reduction in the extract group was modest and that the reasons for the increase in body fat among placebo recipients remained unclear.

The extract also showed favorable effects on body weight, BMI, and body fat percentage. Participants receiving the supplement lost an average of 0.98 kg of body weight, compared with a 0.79 kg gain in the placebo group. BMI and body fat percentage followed a similar pattern, with statistically significant between-group differences that were also supported by the ITT analysis. However, changes in waist-to-hip ratio and lean mass did not differ significantly between groups.

Further sensitivity analyses supported the body weight findings, with between-group differences ranging from −1.03 to −1.84 kg depending on how missing data were handled. Lean-mass results were less consistent, with one conservative scenario suggesting greater lean-mass loss among

extract recipients. The researchers therefore cautioned that the findings did not establish whether the supplement preserved lean tissue.

Findings

Among blood-based markers, adiponectin, a hormone involved in metabolic regulation, increased in the extract group but decreased in the placebo group. This difference remained statistically significant after adjustment for baseline levels and in the ITT analysis. However, most other metabolic and inflammatory markers, including blood lipids, free fatty acids, and high-sensitivity C-reactive protein (hs-CRP), showed no significant between-group differences.

An additional analysis also suggested a reduction in leptin, a hormone involved in appetite and energy regulation, among extract recipients. Because the researchers did not adjust for multiple comparisons, the secondary findings, including the adiponectin increase, were considered exploratory and did not establish broader metabolic or anti-inflammatory benefits.

Changes in dietary intake and physical activity were similar between groups, suggesting that the observed differences in body composition were not explained by measured changes in these behaviors. However, the researchers acknowledged that self-reported dietary and activity data could not rule out unmeasured lifestyle changes. Supplement adherence exceeded 95% in both groups and was slightly higher among extract recipients.

The extract was generally well tolerated over the 12-week study. Seven mild adverse events occurred among six participants across both groups, with none considered related to the study products.

Conclusion

L. salicaria extract was associated with a modest reduction in body fat mass compared with placebo in adults with a BMI of 23–30 kg/m^2 over 12 weeks, alongside exploratory improvements in body weight, BMI, body fat percentage, and adiponectin.

No serious adverse events were reported, although the small sample and short duration limit conclusions about long-term safety. The study was also limited by its relatively small sample size, short duration, and single-center design. The researchers also acknowledged uncertainty surrounding the unexpected increase in body fat in the placebo group and whether the observed fat reduction would persist beyond 12 weeks.

Larger, multicenter studies with longer follow-up are needed to confirm these findings, determine optimal dosing, and evaluate long-term safety. Future research should also explore the mechanisms underlying the observed effects and assess the broader applicability of these results.

Source:

https://www.news-medical.net/news/20261019/Could-this-flowering-plant-help-people-lose-body-fat.aspx