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EFFECT OF CURCUMIN AND RESVERATROL SUPPLEMENTATION ON BONE AND MUSCLE MASS IN PATIENTS WITH CHRONIC KIDNEY DISEASE : A SYSTEMATIC REVIEW

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Objectives: Chronic Kidney Disease patients may experience numerous negative impacts of their disease. Some of common situations are muscle wasting risking to malnutrition and the fragile bone leading to fracture, osteoporosis and falls that increases risk mortality and impact their quality of life. This systematic review aims to explore the effect of curcumin and resveratrol supplementation on bone and muscle mass in patients with CKD.

Methods: We conducted a literature search using electronic databases via Pubmed and Cochrane Library over 10 years (2012-2022). We used MeSh with terms that applied to curcumin and chronic kidney disease, resveratrol and chronic kidney disease. We include one eligible study.

Results: 40 participants with nephropathy undergoing hemodialysis were included in this systematic review. Two groups were divided to supplementation group treated with 500mg of Resveratrol and 500mg of Curcumin orally, and another group (40 patients) treated with placebo over a period of 12 weeks. There was significant difference in BMI values ($p = 0.002$), fat percentage ($p = 0.007$), muscle mass ($p = 0.01$), bone mass ($p = 0.01$) and score of the subjective global evaluation ($p=0.03$).

Conclusions: There were beneficial effects of curcumin and resveratrol supplementation on bone and muscle mass in patients with CKD.

The Flow Diagram

