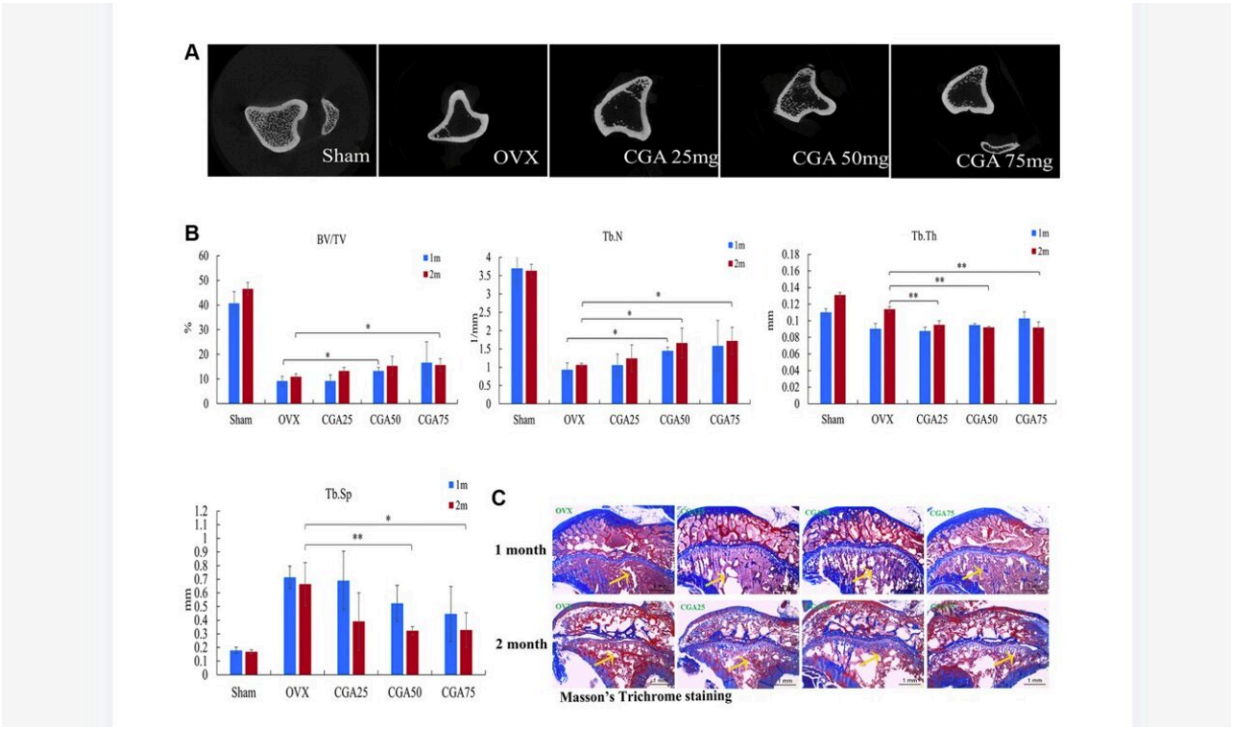
Team finds that chlorogenic acid prevents ovariectomized-induced bone loss

March 26 2024



Chlorogenic acid prevents OVX-induced bone loss. Credit: *Aging* (2024). DOI: 10.18632/aging.205635

A new research paper titled "Chlorogenic acid prevents ovariectomized-

induced bone loss by facilitating osteoblast functions and suppressing osteoclast formation" has been published in *Aging*.

Osteoporosis is a common bone disease in aging populations, principally in postmenopausal women. Anti-resorptive and anabolic drugs have been applied to prevent and cure osteoporosis and are associated with different adverse effects. Du-Zhong is usually applied in Traditional Chinese Medicine to strengthen bone, regulate bone metabolism, and treat osteoporosis. Chlorogenic acid is a major polyphenol in Du-Zhong.

In this new study, researchers Chien-Yi Ho, Chih-Hsin Tang, Trung-Loc Ho, Wen-Ling Wang, and Chun-Hsu Yao from China Medical University, China Medical University Hospital and Asia University found chlorogenic acid to enhance osteoblast proliferation and differentiation. Chlorogenic acid also inhibited RANKL-induced osteoclastogenesis. Notably, ovariectomy significantly decreased bone volume and mechanical properties in the ovariectomized (OVX) rats. Administration of chlorogenic acid antagonized OVX-induced bone loss.

"Taken together, chlorogenic acid seems to be a hopeful molecule for the development of novel anti-osteoporosis treatment," the researchers note.

More information: Chien-Yi Ho et al, Chlorogenic acid prevents ovariectomized-induced bone loss by facilitating osteoblast functions and suppressing osteoclast formation, *Aging* (2024). DOI: 10.18632/aging.205635

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