

27-hydroxycholesterol reverses estradiol induced inhibition of platelet aggregation in postmenopausal women Efecto del 27- hidroxicolesterol en la acción antiplaquetaria de estradiol en mujeres postmenopáusicas

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© 2016, Sociedad Medica de Santiago. All Rights Reserved. Background: The decline of estrogen levels increases cardiovascular risk in women. Platelets express estrogen receptors and 17 β -estradiol- (E2) can produce a protective effect on thrombus formation. The hydroxylation of cholesterol generates several sterols and 27-hydroxycholesterol (27HC) predominates in circulation. Aim: To evaluate the effect of 27HC as an endogenous antagonist of the anti-aggregating properties of E2 in platelets of postmenopausal women. Material and Methods: Platelet function of postmenopausal women was evaluated ex-vivo. Platelets pre-incubated with 27HC in the presence or absence of E2, were stimulated with collagen. Aggregation was evaluated using turbidimetry using a Chrono-log aggregometer. Results: Collagen-stimulated platelet aggregation was significantly inhibited by E2. The inhibitory effect of E2 on collagen-stimulated platelet aggregation was significantly reversed in the presence of 27HC. Conclu