COFFEE DRINKING INFLUENCES PLASMA ANTIOXIDANT CAPACITY IN HUMANS

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Resumen: Coffee and tea are widely consumed beverages, but only tea has been studied for its antioxidant capacity (AC) in vivo. The aim of this study was to compare the capacities of coffee and tea to affect plasma redox homeostasis in humans. The AC of plasma before and after supplementation with 200 mL of beverages (0, 1, and 2 h) was measured by the TRAP and crocin tests. The crocin test detected an increase in plasma AC only in subjects supplemented with coffee (+7% at peak time), whereas the TRAP method showed an increase in plasma AC after consumption of both coffee and tea (+6 and +4%, respectively, at peak time). Both beverages induced a significant increase in plasma uric acid (+5 and +7%, respectively). Uric acid strongly affects the results obtained by the TRAP test and does not affect those obtained by the crocin test. We can thus argue that uric acid is the main component responsible for the plasma AC increase after tea drinking, whereas molecules other than uric acid (probably phenolic compounds) are likely to be responsible for the increase in plasma AC after coffee drinking.