Combined anti-AGEs and antioxidant activities of different solvent extracts of Solanum elaeagnifolium Cav. (Solanaceae) fruits during ripening and related to their phytochemical compositions

Titre	Combined anti-AGEs and antioxidant activities of different solvent extracts of Solanum elaeagnifolium Cav. (Solanaceae) fruits during ripening and related to their phytochemical compositions
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Résumé en anglais	Oxidative stress and advanced glycation end products (AGEs) are known as key factors for the development of diabetic complications such as retinopathy, cataract as well as atherosclerosis and neurodegenerative diseases, including Alzheimer's diseases. In this context, natural products have been previously identified as promising sources for antioxidant and anti-glycation compounds. The current study focuses on the evaluation of antioxidant and glycation inhibitory activities of different solvent extracts of Solanum elaeagnifolium Cav (Solanaceae) fruits at different ripening stages. The results showed that antioxidant and anti-AGEs activities were significantly influenced by solvents polarities and ripening stages of S. elaeagnifolium Cav. With one exception, methanolic extract of overripe S. elaeagnifolium Cav fruit showed important protective effects against cellular oxidative stress. The aqueous extract showed the highest ABTS+ scavenging ability. Principal component analysis showed that total phenolic and flavonoid contents correlated well with observed antioxidants and anti-glycation activities. These results bring attention to the possible use of S. elaeagnifolium Cav as a valuable source of bioactive compounds exhibiting antioxidant effects and potentially alleviating diabetic complications.
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