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Influence of roasting degrees on the antioxidant and anti-angiogenic effects of *Coffea liberica*

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Abstract

Coffee consumption has been associated with many health benefits, that the naturally occurring phytochemicals in coffee are believed to have anti-cancer properties. Unfortunately, established phytochemicals study are scarce. Hence, the present study aimed to evaluate the antioxidant and anti-angiogenic activities of *Coffea liberica* as influenced by different roasting degrees. Green and roasted (light, medium, dark) *Coffea liberica* beans were extracted using soxhlet extraction and cold infusion. Preliminary screening showed that roasting did not affect the phytochemicals qualitatively. Light roasted coffee infusion extract had the highest total phenolic content (366.72 ± 1.54 $\mu\text{g}/\text{mL}$) and percentage scavenging; light roasted coffee soxhlet extract had the highest total flavonoid content (324.67 ± 1.19 $\mu\text{g}/\text{mL}$), and green beans soxhlet extract exhibited the highest anti-angiogenic activity with an average score of 1.33. In conclusion, these findings endorse further investigations to determine the active principles and their mode of actions for potential preventative therapies against angiogenesis-related diseases.