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Antioxidant properties of virgin coconut oil and traditional Sri Lankan coconut oil

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Higher polyphenol contents and better antioxidant properties have been reported for virgin coconut oil compared to copra oil prepared by pressing copra. However, the polyphenol contents and the antioxidant properties of virgin coconut oil (VCO) and traditional Sri Lankan coconut oil (TCO) prepared by boiling coconut milk, have not been compared. In the present study, the HPLC profiles of the phenolic fractions of TCO and VCO were compared and the antioxidant activities of VCO and TCO were also determined by DPPH radical scavenging assay.

The HPLC profiles of the phenolic fractions of VCO and TCO are given in Figure 1. The chromatograms indicate that TCO contains a more complex phenolic fraction. The total phenol contents of VCO and TCO calculated by the signal areas of the two chromatograms are 33.5 ± 0.2 mg/ kg and 547.4 ± 63.5 mg/ kg respectively. The DPPH radical scavenging activities of VCO and TCO are 18.5% and 79% (percentage inhibition) respectively.

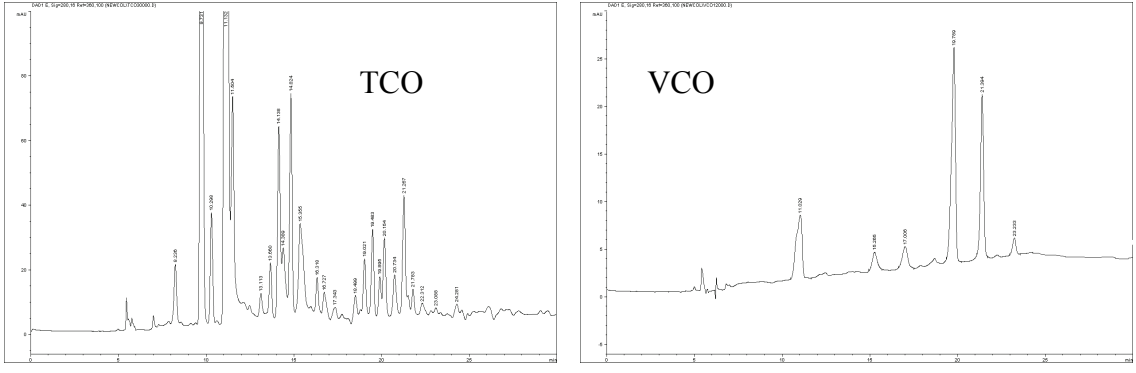

Fig 1. HPLC chromatograms of TCO and VCO

The results indicate that TCO is a richer source of antioxidants and TCO shows better antioxidant properties compared to VCO. Because of the high prices, Sri Lankan consumers are unable to consume VCO in their regular diet. However, due to the better antioxidant properties, TCO may render even better health benefits according to the above results.

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