Antioxidant properties of mangosteen pericarp extract

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Garcinia mangostana Linn. (GML), also known as mangosteen, is a tropical plant, most-known for its fruits, especially in Indonesia, Thailand, Sri Lanka, Malaysia, and other Southeast Asian countries. These countries have used mangosteen fruit rind (pericarp) as traditional treatments for diarrhea, dysentery, skin infections, wounds and other illnesses. GML has a great biological versatility as an interesting source of bioactive substances. These days, attention of research is focused on residual sources which are usually the waste parts of the fruit, such as the pericarp. Numerous studies have been conducted to examine and verify the medicinal properties of mangosteen pericarp. The medicinal properties verified so far are anti-inflammatory, anti-tumoral, antibacterial, antiviral, antifungal, anti-allergic and its antioxidant abilities. Many studies have examined the comparison of antioxidant activities in each part of the fruit; pericarp, stem, fruit and leaves. In those experiments, the pericarp of mangosteen extract evidently contains the strongest antioxidant activity among other parts of the fruit. Experiments have detected scavenging activities on different extracts of GML, as each scavenging activity discovered expands our knowledge of GML’s true antioxidant potential. To accompany the continuous process of discovering GML’s true antioxidant potential, we hereby conduct this review, aimed to gather current information on antioxidant properties of GML and to summarize its potential as an antioxidant agent. In addition, the analytical techniques for determining the antioxidant activity of mangosteen pericarp extract, antioxidant activity comparison for parts of mangosteen fruit and the bioactive substances discovered affecting the antioxidant activity of mangosteen pericarp extract are also discussed in this review.

Biography
Amirah Deandra Diba is a currently a fourth-year student at Faculty of Medicine, Universitas Indonesia. She is interested and open to more experiences in research, evaluation and literature studies.

Andika Trya is currently an undergraduate student in the Faculty of Medicine, Universitas Indonesia. His most recent interest and research focuses on Garcinia mangostana Linn. fractions and extracts. He strives to expand his knowledge and experience in the vast clinical and biomedical field of study.

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