EFFECTS OF THE INTAKE BARU ALMOND (DIPTERYX ALATA VOGEL) ON BODY COMPOSITION AND LIPID PROFILE: A REVIEW

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RESUMO

Thematic area: Obesity **Introduction:** baru almond (*Dipteryx alata* Vogel) is Brazilian Cerrado species that arouses interest due to its nutritional and chemical composition rich in proteins, unsaturated fatty acids, and antioxidant compounds such as phenolic acids, flavonoids, and terpenes. **Objective(s)**: to perform a systematic review of the effects of the intake baru almond (*Dipteryx alata Vogel*) on body composition and lipid profile. **Materials and methods:** this review followed the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses - PRISMA methodology. Studies were searched in Medline (PubMed), Scopus, Scielo, and ScienceDirect databases using the descriptors "*Dipteryx alata*" OR "baru nut" OR "baru almond" OR "*Dipteryx alata*" AND "dyslipidemic" OR "obesity". No language or date restrictions were made. An initial screening excluded duplicate articles. Then, the title and abstract were read to apply the exclusion criteria (reviews, short communication, conference of documents, and article on other topics). After reading each article in its entirety, original studies, books, or chapters published online that covered one or more of the objectives of this review were eligible. **Results:** a total of nine articles were eligible. Studies reported that the consumption of the diet supplemented with 14% of baru almond for two weeks reduces triglycerides (TG) and very low-density lipoprotein (VLDL-c). The intake of baru almond (20 to 40%) for at least 40 days can reduce total serum cholesterol (TC), low-density lipoprotein (LDL-c), and alanine aminotransferase. The supplementation of baru almond (14 to 40%) for at least 14 days increased high-density lipoprotein (HDL-c) in rats. However, the baru almond oil ($1g.Kg^{-1}$) did not alter the lipid profile in hypercholesterolemic rats treated daily for 15 weeks. The intake of 20 g of whole baru almond for six weeks reduced TC and LDL-c in mildly hypercholesterolemic individuals and the intake of the same serving for eight weeks reduced serum TC, TG, LDL-c, and increased HDL-c levels in overweight women. Some studies reported the benefits of baru in controlling weight gain and reducing visceral fat. Baru almond (15% lipids) promoted less body weight gain in normal rats, after nine weeks. Another study reported a reduction in body weight in obese mice feed supplemented with baru almond (8%) for eight weeks. Finally, a daily 20 g of baru almond for eight weeks reduces abdominal adiposity in obese women. **Conclusion**: the prolonged intake of baru almond reduces total cholesterol, low-density lipoprotein, triglycerides, very low-density lipoprotein and increases high-density lipoprotein, improving the lipid profile. Furtherover, it reduces body weight and abdominal fat. Therefore, baru can be used as an adjuvant in the prevention and treatment of obesity. Resumo - sem apresentação

PALAVRAS-CHAVE: adiposity, dyslipidemia, nuts, obesity

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