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Comparative assessment of cholesterol levels in *Shatha Dhautha Gritha* made by different preparation methods with reference to Ayurveda medicinal preparations

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Gritha (ghee) preparations are effective medicinal preparations used in Ayurveda medicine. *Shatha Dhautha Gritha* is a ghee preparation commonly prescribed for treatment of wounds, burns, chicken pox scars, herpes, leprosy and other skin diseases. According to ancient texts, it is prepared by rinsing cow's ghee (clarified butter fat) one hundred times with water. Though literature available is limited, previous research has reported that the chemical changes which take place when converting *Gritha* to *Shatha Dhautha Gritha* results in a product free from oil. The present study is a comparative assessment of cholesterol levels in *Shatha Dautha Gritha* made by three different preparation methods.

Three commercial ghee samples named as M, R and H were used. For the rinsing process, four liquid media including pure water, decoction of coriander, decoction of ginger and a mixture of ginger and coriander decoction were used. The cholesterol levels of the preparations at different stages of rinsing were estimated using diagnostic enzymatic kits for total cholesterol. Furthermore, the efficiency of the manual method versus the mechanical method in the preparation of *Shatha Dautha Gritha* was evaluated. The cholesterol levels of the samples M, R and H when rinsed in water were, in mg/dL, 6.03 ± 0.12 , 8.05 ± 0.27 and 7.91 ± 0 , respectively, and comparatively lower than when other three rinsing media were used. The cholesterol levels of all three brands reduced to zero level at the 70th step of rinsing. Although all four rinsing media completely rinsed out cholesterol at the 70th stage, pure water was the best medium, because it rapidly rinsed out total cholesterol within a few steps of rinsing. Both manual and mechanical methods helped to rinse out the cholesterol, but the manual method was more effective in lowering cholesterol in the *Gritha* samples.

In conclusion, *Shatha Dhautha Gritha* is free from cholesterol and can be used as an alternate to cow's ghee in the preparation of *Gritha* medicines. These preparations can be beneficial to hypercholesterolaemic patients on long term *Gritha* treatments.

Keywords: Ghee, *Shatha Dautha Gritha*, cholesterol, ginger, coriander