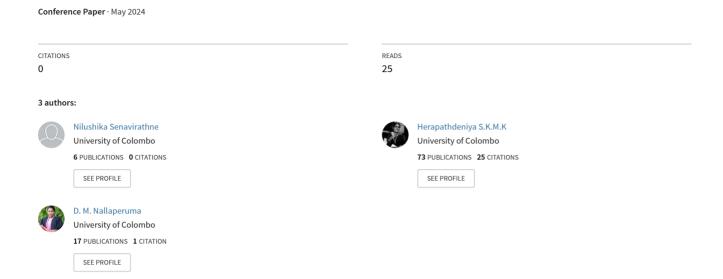
Comparative study of bhashma prepared by using different marine-originated animal materials



Pharmacology, Pharmaceutics and Clinical trials

Comparative study of bhashma prepared by using different marineoriginated animal materials

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Rasa shastra is a main pharmaceutical branch in Ayurveda. Mercury is the main material in Rasa shastra. Other than mercury, different animal materials, minerals, gems, marineoriginated materials and some toxic plants are also described under Rasa shastra. Shankha, Shukthi and Kaparda are some of the commonly used marine-originated animal materials. These materials contain Calcium and are categorized under Suda varga. The objective of this study is to prepare shankha, shukthi and kaparda bhashmas according to Rasa shastra and to perform the physico-chemical analysis of these bhashmas including the determination of Calcium percentage. The boiling and steaming method was used for the purification, and incineration was done by using the muffle furnace at 550°C. Bhashma standardization parameters like Rekha purnatva, Varitharathva, Uththama, Gatha rasathva, Avami, Anjana sadrusha sukshma and Danta grana kacha kacha were performed for all these bhashmas. Calcium percentage in each bhashma was determined using titration method. Results revealed that all the bhashmas are within the standard parameters according to classical texts. According to modern physico-chemical analysis, total ash contents were 99.2%, 98.5%, 98% respectively. Acid insoluble ash values (52%, 77.8%, 57% respectively) were higher than water soluble ash values (3.8%, 2.65%, 1.65% respectively). Moisture content of all the samples were relatively low (0.4%, 1.3% 0.95% respectively). All the samples were having an alkaline pH value (8.2, 8, 8.7). The highest Calcium percentage was reported from shukthi bhashma (99.3%) and lowest from kaparda bhashma (78.4%). It can be concluded that all the bhashmas were having the standard quality according to Ayurveda as well as modern physico-chemical parameters. Among these, Shukthi bhashma which has the highest Calcium percentage can be highly recommended as a nutritional supplement for Calcium deficiencies.

Keywords: Bhashma, Calcium percentage, Kaparda, Marine originated, Shanka, Shukthi

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