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Evaluation of uniformity of weight of selected Ayurveda medicinal pills in the market

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Ayurveda pharmaceuticals play a vital role in the health care system in Sri Lanka. Several types of medicinal pills are being used in Ayurveda. Weight uniformity of pills in each batch and brands of the same medicinal pills are mandated. The quantified assessment of uniformity and consistency of the weight of pills are significant due to the high usage. The weights of pills were measured with reference to the weight given in the Sri Lankan Ayurveda Pharmacopoeia for four Ayurveda preparations named as *Seetharama vati* (125 mg), *Suranvidura vati* (125 mg), *Swasa kutara rasa* (250 mg) and *Kapha kethu rasa* (125 mg). Three commercial brands (A, B, C) of each pill were randomly collected from the market. The weight of one hundred pills of each selected brand was measured using an analytical balance and the results were analyzed statistically using Minitab 12 software. The results revealed the mean weight of *Seetharama vati* in brands A, B and C as 93.20 mg \pm 19.21SD (ranging from 36.50 mg to 116.80 mg), 88.54 mg \pm 18.63SD (ranging from 56.7 mg to 176 mg) and 86.89 mg \pm 14.59SD (ranging from 57.30 mg to 121.30 mg) respectively. The mean value of the weight of *Suranvidura vati* in brands A, B and C were 78.28 mg \pm 18.80SD (ranging from 20.00 mg to 130.70 mg), 83.49 mg \pm 10.91SD (ranging from 50.70 mg to 100.50 mg) and 75.98 mg \pm 16.37SD (ranging from 41.80 mg to 100 mg) respectively. The mean value of the weight of *Swasa kutara rasa* in brands A, B and C were 106.83 mg \pm 13.36SD (ranging from 76.4 mg to 138.8 mg), 147.41 mg \pm 32.27SD (ranging from 100.00 mg to 199.00 mg) and 169.89 mg \pm 41.68SD (ranging from 101.90 mg to 257.60 mg) respectively. The mean value of the weight of *Kapha kethu rasa* in brands A, B and C were 76.05 mg \pm 13.05SD (ranging from 35.90 mg to 98.60 mg), 84.80 mg \pm 8.31SD (ranging from 66.80 mg to 105.30 mg) and 107.96 mg \pm 18.21SD (ranging from 82.00 mg to 199.20 mg) respectively. The mean values of the weights of tested pills were significantly different from the weight given in the Pharmacopoeia ($p \leq 0.05$). The deviation of weight from the reference weight highlights the requirement for standardization of herbal preparations.