Abstract

Invasive method of determining blood pressure has been the commonly used method in animal model of hypertension study. Currently used non invasive blood pressure monitoring devices are very costly and unaffordable by researchers from developing or under developed countries. In our study, we designed a new method for determining blood pressure in animal model studies by using CONTEC 08A device with small cuff for rats. Ten male Wistar rats of 182-240 g body weight were randomly assigned to two groups (n=5/group). A group served as control (without treatment), the second group was administered dexamethasone (2mg/kg of body weight) supplemented with 4% table salt (NaCl) as drinking water to induce hypertension. Blood pressure was measured ten times in each rats of the two groups at baseline (day 0) and after 5 days. Reproducibility (Sw) was calculated in each group. CONTEC 08A yielded good reproducibility in both hypertensive (SBP, Sw = 6 mm Hg, DBP, Sw = 10 mm Hg) and non hypertensive rats (SBP, Sw = 3 mm Hg, DBP, Sw = 6 mm Hg). Better reproducibility was obtained in non hypertensive rats. Consistency in data obtained showed that non invasive blood pressure monitoring using CONTEC 08A device with small cuff is effective, and recommendable for use in rat model study of hypertension.

Biography

Abiola Muhammad Adeosun is an Expert in the field of Animal model of cardiovascular diseases. He has passion in improving health and wellness of patients with hypertension. He is currently on his PhD at the Department of Biochemisty, College of Biosciences, Federal University of Agriculture, Abeokuta, Ogun state Nigeria.

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