

MEASUREMENT OF BLOOD PRESSURE IN THE ARM AND FOREARM: IS THERE A DIFFERENCE?

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Introduction: Obtain an accurate measurement of blood pressure (BP) is of fundamental importance for the diagnosis and follow-up of hypertensive patients. It is known that in some patients, such accuracy is not possible due to the anatomical changes in the musculature of the arm, obesity, and dysmorphisms.

Objective: To evaluate and compare blood pressure values using the traditional method of measuring blood pressure in the arm with the values measured in the forearm in hypertensive patients for validation of this technique in obese patients and/or with the arm dysmorphisms.

Materials & Methods: 70 patients of both sexes, aged between 30 and 90 years were included from hypertension outpatient clinic of the State Medical School of São José doRio Preto FAMERP - SP. The BP was measured by the oscillometric method using two electronic devices, with clamp standard for adults with arm circumference between 220 mm and 420 mm and automatic inflation and deflation of air, with pressure variation of 0-280 mmHg (appliance, MICROLIFE BP3AC1-1 model PC) obeying the VII Brazilian Guidelines for the treatment of hypertension. The anthropometric data were obtained at the beginning of the research for sample characterization, as well as information on gender and age.

Results: In accordance with the statistical analysis of the data, measured blood pressure could be observed in, that the linear correlation values are >85%, which corresponds to an excellent correlation between the measurements of arm and forearm for both systolic and diastolic BP, ME, a BP and pulse pressure.

Conclusion: Both measurements of systolic and diastolic blood pressure were equivalent in arm and forearm, in such a way that can be considered effective measurement of BP in the forearm in hypertensive patients being of particular usefulness in obese patients or who present arms dysmorphisms.

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