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原著

血圧の変動とその管理

藤井俊子[1)] 藤原忠男[2)] 緒方正名[3)]

川崎医療福祉大学 医療技術学部 臨床栄養学科[1)]

川崎医療福祉大学 医療技術学部 医療情報学科[2)]

川崎医療福祉大学 医療福祉学部 医療福祉学科[3)]

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On the Range of Variance of Blood Pressure and Its Control

Toshiko Fujii[1)], Tadao Fujiwara[2)] and Masana Ogata[3)]

Department of Clinical Nutrition Faculty of Medical Professions Kurashiki, 701-01, Japan[1)]

Department of Medical Informatics Faculty of Medical Professions Kurashiki, 701-01, Japan[2)]

Department of Medical Social Work Faculty of Medical Welfare Kurashiki. 701-01, Japan[3)]

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Abstract

In order to find factors relating to the variance of blood pressure levels, the data of healthy subjects measured by the automatic sphygmomanometer three constant times a day through nine days were computed using three･way analysis of variance on three factors consisting of an individual difference (the subject itself) , the measuring time in a day, and the measuring day. The tables of three-way analysis of variance were obtained. They showed that an individual difference was a significant factor ($p<0.01$) relating to the variance of the highest and the lowest blood pressure levels, and of pulse pressure levels. They also showed that the measuring time was a significant factor ($p<0.01$) relating to the variance of the lowest blood pressure. Two-way analysis of variance on two factors consisting of the measuring day and the measuring time in a day was also carried out. The tables of two-way analysis of variance showed that there was no significant factor relating to the blood pressure levels. According to these results, an application of blood pressure control charts (x -R and / or x - R-x chart) is recommended to people who

wish to keep their normal blood pressure levels. Then two of the control charts are presented in this paper.

要 約

本研究では,健康な被験者の血圧測定値を用いて,分散分析法により血圧の変動因子を調べた.その結果,個体差,測定日,測定時刻の3つの因子による三元配置の分散分析表では,個体差の因子は,最低血圧,最高血圧,脈圧の順に有意差(危険率1%)が認められた.また,最低血圧では,測定時刻の因子にも有意差(危険率1%)が認められた.測定日と測定時刻の2つの因子による二元配置の分散分析では,有意差が認められる因子はなかった。 以上の結果から、自分で血圧管理を行う場合には,個人別に血圧管理図(x一R管理図,および/またはx一R-x管理図)を作成して,それを活用する方法が推奨されるので,実例を示した.