

Effects of Coffee Drinking on the Activity of Autonomic Nervous System in Human: High Resolution by a Power Spectral Analysis

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SUMMARY

Coffee beans contain some physiological and pharmacological active components. Especially, caffeine is known as a stimulant of central nervous system and contraction of the blood vessels. Not so many studies in detail have been done so far non-invasively on its effect on the activity of autonomic nervous system (ANS). In this study, we have attempted to develop a computer-implanted power spectral analysis of heart rate variability which is a useful non invasive method, and to determine the possibility of its application to the field of physiological functions of food. The subjects who volunteered for this study were 8 healthy people. After drinking of coffee, it was observed by a power spectral analysis that the activity of ANS was augmented. Drinking of caffeinated coffee showed a greater effect on the activity of ANS than that of decaffeinated one. Our present results suggest the possibility of the application of a power spectral analysis to the field of physiological functions of food.