

(특강-3)

- 1) 제목 : Hemodynamic effects of *Panax ginseng* and *P. quinquefolia* in Healthy Young Men
- 2) 발표자의 소속 및 성명 : 서울대학교 약학대학 제약학과, 한용남
- 3) 발표요지 : 아래

Hemodynamic effects of *Panax ginseng* and *P. quinquefolia* in Healthy Young Men

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This study was performed to observe the effects of *Panax ginseng* (PG) and *P. quinquefolia* (PQ) on hemodynamics such as blood flow rate (BF), blood flow velocity (BV), heart rate (HR), systolic blood pressure (SBP) and diastolic blood pressure (DBP), and body temperature (BT) in healthy young men. With a randomized, single-blinded study, these factors were observed during 6 hrs after a single administration of PG and PQ powder by p.o., at doses of 2.25, 4.5 and 9.0 g in 120 ml mineral water/person. Eighty-eight subjects were divided into seven groups: control (n=16), 3 groups of PG (each n=12) and 3 groups of PQ (each n=12). Subjects who showed each parameter by far from the average or lacked BF and BV data were excluded for the statistic analysis. Thus, each group was composed of control group (n=13), PG

2.25 group (n=9), PG 4.5 group (n=9), PG 9.0 group (n=9), PQ 2.25 group (n=11), PQ 4.5 group (n=10) and PQ 9.0 group (n=8). Repeated measured ANOVA (analysis of variance) using PROC GLM (general linear models) of the SAS system was utilized to confirm intergroup statistical differences. After testing equality of variance, Student's t-test using PROC TTEST was examined to prove statistical differences between control and ginseng conditions at each time point. It was found that the BF data were fluctuated by personal deviation. In order to minimize the deviation, the results obtained for 6 hrs were reconstituted after dividing them into two periods of the first half from 1 to 3 hrs and of the latter half from 3.5 to 6 hrs. And then the reconstitution data and dose-response curves were obtained. There was only one intergroup statistical difference between PG and PQ observed in DBP ($p=0.0134$). Statistical differences between PG and PQ-treated groups were as follows: HR ($p=0.0024$) and DBP ($p=0.0144$) at the dose of 2.25 g, DBP ($p=0.0440$) at the dose of 4.5 g, and BF ($p=0.0412$) at the dose of 9.0 g. Hemodynamics of PQ were varied according to times after administration, while those of PG were stayed at a steady state. There was a significant reduction in BT in groups of PG 4.5 (from 36.530 °C to 36.196 °C, -0.334 °C), PG 9.0 (to 36.318 °C, -0.212 °C) and PQ 9.0 (to 36.120 °C, -0.410 °C). In summary, PG is more effective in respect to keeping homeostasis of hemodynamics. In addition, these data showed that PG might be more effective to body temperature at a certain degree than PQ.

5) 연락처

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