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Poster Sessions

***Acanthopanax senticosus* (Siberian ginseng) induces endothelium-dependent and -independent vasorelaxations**

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Siberian ginseng (SG) has several biological properties including anti-fatigue, anti-stress, and sedative effects. Although SG has been reported to improve peripheral blood circulation in rats under healthy conditions, the underlying mechanism has not been well studied. Therefore, we investigated whether SG causes relaxation in isolated arteries in healthy control rats and determined the underlying mechanisms. We used a SG root powder extracted with hot water. In the thoracic aorta, isolated from Wistar rats, the vasodilator effects of SG using organ bath techniques were compared to that of acetylcholine (ACh). Similar to ACh, SG caused relaxations in a dose-dependent manner in arteries pre-contracted with phenylephrine. Unlike ACh, SG-induced relaxations were partially inhibited by treatment with antagonists of muscarinic receptor (atropine), nitric oxide (NO) synthase (L-NAME), and soluble guanylyl cyclase (ODQ), and by endothelium removal. These results demonstrate that SG-induced vasorelaxations occur via both NO production from the endothelium and NO-independent pathway in healthy rats; therefore, SG may improve peripheral circulation via vasorelaxation.