Oral Presentation Award Winner

Polysaccharide Peptide of *Ganoderma lucidum* Reduces Endothelial Injury in Stable Angina and High-risk Patients

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Objective: This study aims to prove the effect of the polysaccharide peptide (PsP) of *Ganoderma lucidum* to reduce endothelial injury and improve endothelial function.

Material and methods: This is a clinical trial with pre-post-test design, conducted in 40 high-risk and 40 stable angina patients, determined based on the 2016 European Society of Cardiology guideline for stable coronary artery disease.

Stable angina and high risk patients were given PsP 750 mg/day in three divided doses for 90 days in addition to their regular medications, given by their cardiologist. Informed consent was obtained and ethical clearance was published. Endothelial injury was measured with circulating endothelial cells (CEC) count using flow cytometry, and endothelial regeneration, measured with the endothelial progenitor cells (EPC) count using flow cytometry. Non-adherence of >80% was considered to be drop-out case.

Results: During follow-up, nine patients were considered to drop-out because of non-adherence. No significant adverse effects were documented.

CEC significantly reduced both in high-risk and stable angina patients, with the average count of CEC reduced from 7.91 to 1.76 cells/ml in stable angina patients, and from 7.38 to 2.23 cells/ml in high-risk patients (p=0.001). EPC count significantly reduced in high-risk and stable angina with p=0,000, with average count of 15.11 cells/ml reduced to 6.14 cells/ml in stable angina and 12.94 to 6.10 cells/ml in the high-risk group.

Conclusion: PsP of *G lucidum* could reduce endothelial injury significantly, but the following reduction of EPC needs further research whether because of the minimal endothelial injury that was not enough to induce EPC mobilisation. ❑