

## Identification of compounds inhibiting AGEs formation in *Syakuyaku*

Yukio Fujiwara

*Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University*

Advanced glycation end-products (AGEs), were known as major hydrolysate of glycated collagen. Subsequently, AGEs was also detected in human serum, and its level in patients with diabetes was found to be higher than in normal subjects. Furthermore, it is known that AGEs-collagen induces apoptosis in fibroblasts through activation of reactive oxygen species and MAP kinases. Therefore, treatment with AGEs inhibitors may be a potential strategy for the prevention of clinical diabetic complications and skin aging. In the present study, we investigated the inhibitory effect of *Syakuyaku* extract and compounds contained in *Syakuyaku* on N<sup>ω</sup>-(carboxymethyl) arginine (CMA) formation to discover the candidate agents for the new AGEs inhibitor. As a result, *Syakuyaku* extract and pentagalloylglucose isolated from *Syakuyaku* extract showed significant inhibitory effect on CML and CMA formation during incubation of collagen with ribose, thus *Syakuyaku* and pentagalloylglucose may be candidate agents for the new AGEs inhibitors.