※自署の場合は押印不要

（様式２－１表紙・該当者のみ）

学位論文内容の要約

Tumor angiogenesis is essential for tumor progression. Tumor endothelial cells (TECs) lining tumor blood vessels exhibit abnormal phenotypes, such as high levels of inflammatory cytokines. Cancer-associated thrombosis is a leading cause of mortality in cancer patients and there is a need to develop therapies to prevent thrombosis. Epigallocatechin-3-O-gallate (EGCG), a versatile natural product found in green tea, is known to have anti-inflammatory effects. Since endothelial cells activation is one of trigger of thrombosis by upregulating procoagulant factors, we hypothesized that EGCG would exert an anti-inflammatory effect on TECs and act in anticoagulation. EGCG treatment in TECs inhibited their expression of inflammatory cytokines, such as TNF-α, IL-6, and von Willebrand factor (vWF), which is involved in platelet adhesion and thrombosis. To analyze the effect of EGCG on TECs in vivo, we used a cyclic RGD liposome delivery system (MEND) to efficiently deliver EGCG to TECs. EGCG-MEND treatment of CT26 tumor-bearing mice inhibited tumor angiogenesis and inflammation by reducing perivascular recruitment of inflammatory cells. In addition, tumor thrombosis was also inhibited by EGCG. These data suggest that targeting TECs with EGCG may induce anti-angiogenic, anti-inflammatory and anti-thrombotic effects and could be a promising cancer therapy.

学位論文題目

Targeting tumor endothelial cells by EGCG causes anti-inflammatory and anti-thrombotic effects

（腫瘍血管内皮細胞を標的とした EGCG 投与による抗炎症・抗血栓効果）

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