The inhibitory effect of green tea polyphenol epigallocatechin gallate (EGCG) and curcumin on the inflammation of endometriosis

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목적: EGCG and curcumin have been reported to evidence anti-inflammatory, anti-oxidant, and anti-proliferative properties via the modulation of multiple cellular mechanisms. Endometriosis, the presence of ectopic endometrial tissue outside the uterine cavity, is a common disease affecting women during their reproductive years. In this study, the in vitro effects of EGCG and curcumin on endometrial cell inflammation.

방법: We showed that EGCG and curcumin inhibit expression of inflammatory-related genes in the endometrium cells by using the experimental systems of luciferase assays, real-time PCR and Western blotting analyses.

결과: EGCG and curcumin synergically exerted inhibitory effects via NF-kB-independent pathway in cooperation with pyrrolidine dithiocarbamate (PDTC). Finally, the combination of EGCG and curcumin exerted profound inhibitory effects on the homeotic regulator CDX1 and 2.

결론: Our results indicate that EGCG and curcumin may be potentially useful as novel anti-inflammatory reagents when administered in endometriosis.