ANTI-PROLIFERATIVE EFFECTS OF SKULLCAPROOT EXTRACTION PROGRESSION OF BENIGN PROSTATIC HYPERPLASIA

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This study was performed to evaluate the efficacy of Skullcap root extract (SRE) in testosterone-induced benignprostatic hyperplasia (BPH) in rats.BPH was induced in the rats by intramuscular injection of testosterone propionate after castration. Rats were divided into five groups: Group 1, control group; Group 2, BPH-induced group; Group 3, BPH-induced group treated with finasteride; Group 4, BPH-induced group treated with SRE 100 mg/kg/day; Group 5 – BPH-induced group treated with SRE200 mg/kg/day.Compared with the untreated group, the SRE treatment group suppressed pathological alterations, such as prostate growth and increase in serum dihydrotestosterone and 5α-reductase levels. Furthermore, SRE significantly decreased the expression of androgen receptor and proliferating cell nuclear antigen. Furthermore, SRE restored apoptosis-relativeBax/Bcl-2 balance and caspase-3 activitycompared with the BPH group.Taken together, we propose that SRE suppresses abnormal androgen events in prostate tissue and inhibits the development of BPH by targeting proliferation-related markers. These finding strengthensthe role of SRE as anti-BPH agent.This research was supported by Basic Science Research Program through the National Research Foundation of Korea(NRF) funded by the Ministry of Science, ICT & Future Planning(NRF-2016R1C1B2011827)