

**PP56****Investigate the synergistic effect of HMGB1 in inflammatory cytokines release from macrophages induced by CaP**T. Zhi Wei, D. Yao Liang, F. You Cai, L. Cheng Yang*Department of Urology, First Affiliated Hospital of Guangxi Medical University, Nan Ning, China***Objective:** To investigate the synergistic effect of HMGB1 in inflammatory cytokines release from macrophages induced by CaP.**Methods:** The human macrophages were stimulated with RPMI-1640, 100ug/ml CaP, 100ng/ml HMGB1 and 100ug/ml CaP+100ng/ml HMGB1 for 1h, 2h and 4h. and were stimulated with 100ug/ml CaP, 100ug/ml CaP+10ng/ml HMGB1, 100ug/ml CaP+50ng/ml HMGB1 and 100ug/ml CaP+100ng/ml HMGB1 for 4h. The supernatants were collected and IL-1 $\beta$ , IL-6, TNF- $\alpha$ , MCP-1 were determined by ELISA.**Results:** The IL-1 $\beta$ , IL-6, TNF- $\alpha$ , MCP-1 in the cell culture supernatant of 100ug/ml CaP group, 100ng/ml HMGB1 group showed higher levels contrast to the blank control group for 1h, 2h and 4h ( $P < 0.05$ ); And 100ug/ml CaP+100ng/ml HMGB1 group also showed the same trend contrast to the blank control group, 100ug/ml CaP group, 100ng/ml HMGB1 group for 1h, 2h, 4h ( $P < 0.05$ ); The levels of IL-1 $\beta$ , IL-6, TNF- $\alpha$ , MCP-1 in the cell culture supernatant of 100ug/ml CaP+10ng/ml HMGB1 group, 100ug/ml CaP+50ng/ml HMGB1 group and 100ug/ml CaP+100ng/ml HMGB1 group were higher than that of 100ug/ml CaP group for 4h ( $P < 0.05$ ). Our results indicated that both CaP and HMGB1 showed an ability of inducing IL-1 $\beta$ , IL-6, TNF- $\alpha$ , MCP-1 release from human macrophages. HMGB1 had synergistic effect on IL-1 $\beta$ , IL-6, TNF- $\alpha$ , MCP-1 release from macrophages induced by CaP.**Conclusion:** HMGB1 acted in synergy with CaP in activating macrophages to secrete proinflammatory cytokines.