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ANTI-APOPTOSIS EFFECTS OF CAPTOPRIL, MILKVETCH ROOT AND THEIR COMBINATION ON HUVEC INDUCED BY H₂O₂Zhang Jing, He Shenghu *Jiangsu Province Subei Renmin Hospital, Jiangsu, China*

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Objective To investigate the protective effects and mechanisms of ACEI (Captopril), Milkvetch root and their combination on human umbilical vascular endothelial cells (HUVECs) following the damage of hydrogen peroxide (H₂O₂).

Methods HUVEC were injured for 4 h by 2.00 mmol/l H₂O₂ after they were incubated with different dosages of Captopril, Milkvetch root and their combination for 24 h. AO/EB fluorescent staining observed morphology changing of apoptosis. Apoptosis ratio of HUVEC was detected by FCM. Important inhibition apoptosis proteinum Bcl-2 was detected by Western blot.

Results The morning apoptosis ratio of cell in the normal control and (Captopril-L, M, H/Milkvetch root-M, H)+H₂O₂ groups were significantly lower than those in the H₂O₂ oxidative control ($p < 0.05$ or $p < 0.01$) except Milkvetch root-L+H₂O₂ group ($p > 0.05$). The total apoptosis ratio of cell in the normal control and (Captopril/Milkvetch root-M, H)+H₂O₂ groups were significantly lower than those in the H₂O₂ oxidative control ($p < 0.05$ or $p < 0.01$) except Captopril/Milkvetch root-L+H₂O₂ group ($p > 0.05$). Besides the content of important inhibition apoptosis proteinum Bcl-2 of cell in the normal control and (Captopril/Milkvetch root-M, H)+ H₂O₂ groups were significantly lower than those in the H₂O₂ oxidative control ($p < 0.05$ or $p < 0.01$) except (Captopril/Milkvetch root -L)+H₂O₂ group ($p > 0.05$). The effect of (Captopril+Milkvetch root)-L, M, H+H₂O₂ groups were significantly better than those in the Captopril/Milkvetch root-L, M, H+H₂O₂ groups ($p < 0.05$ or $p < 0.01$). Conclusion Captopril, Milkvetch root and their combination can decrease in the morning and apoptosis ratio induced by H₂O₂, increases the level of proteinum Bcl-2 of cell, and depends on their concentration to some extent. The combined effect of Captopril and Milkvetch root is better than the single effect of Captopril and Milkvetch root. So the combination of Medicine and Chinese traditional medicine can better protect damaged HUVECs.