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• 中文摘要

高血壓是人類最盛行的慢性疾病，其中一種治療的方式即是抑制腎素-血管收縮素系統中的 Angiotensin-ConvertingEnzyme (ACE)而達到降低血壓的效果。在體外實驗中發現，大豆蛋白質酵素水解物具有抑制 ACE 之生理活性，因此本研究將針對大豆蛋白質經酵素水解後之產物，探討其在自發性高血壓大白鼠(SHR)體內是否可藉由抑制 ACE 活性的作用而達到降低血壓的效果。結果顯示大豆蛋白酵素水解物確實可抑制體內之 ACE 活性，進而達到減少血壓上升的效果。

• 英文摘要

Hypertension is the most common public problem in the developed countries. One of the useful way of lowering blood pressure is to treat the patients with inhibitors of angiotensin converting enzyme (ACE). Recently, hydrolysate from food proteins are found to have ACE inhibitor activity. Therefore, the aim of this study is to investigate the antihypertensive effects of soybean protein. Soybean protein hydrolysate were prepared by pepsin-digested SPI (Soybean protein isolate). SHR were fed with diet containing NaCl and treated with different does (1% or 0.5%) of soybean protein hydorlysate. Blood pressure was measured and ACE activity was analyzed by using Hip-Gly-Gly as a substrate. The results showed that soybean protein hydrolysate feeding have no adverse effect on growth and can significantly lower blood pressure compared to control group. We also found that soybean protein hydrolysate can inhibit ACE activity in plasma. These data suggest that soybean protein hydrolysate inhibit ACE activity and have antihypertensive effect in rats.