

虚血性心疾患病態モデルに対する丹参エキスの効果

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Beneficial Effect of TAN - SHEN, An Extract from The Root of *Salvia*, on Post - hypoxic Recovery of Cardiac Contractile Force

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ABSTRACT - The present study was undertaken to elucidate the possible effects of tanshinone VI, one of the extracts from the root of *Salvia*, on post - hypoxic recovery of cardiac contractile force. For this purpose, rat hearts were perfused for 45 min under reoxygenated conditions following 20 - min hypoxic perfusion, and changes in tissue high - energy phosphates and calcium contents, and release of ATP metabolites and creatine kinase were examined. Post - hypoxic recovery of cardiac contractile force was augmented when hearts were treated with 42 nM tanshinone VI during hypoxia. This beneficial recovery was accompanied by enhanced restoration of myocardial high - energy phosphates, depression of hypoxia and reoxygenation - induced increase in tissue calcium content, and suppression of release of ATP metabolites such as adenosine, inosine and hypoxanthine from the perfused heart. The results suggest that tanshinone VI is beneficial for the recovery of cardiac contractility after a certain period of oxygen - deficiency, possibly through mechanisms involving improvement of myocardial energy production upon oxygen - replenishment and / or inhibition of calcium accumulation in the cardiac cell.

抄録 本研究は漢薬、丹参より単離されたアビエタン系ジテルペン、タンシノン-6について、虚血性心疾患病態モデルを用いた薬理実験の結果を示す。すなわち、ラット摘出心臓について、20分間低酸素化負荷後45分間の再酸素化時において、心臓よりの代謝物を検討した。それらのうち、ATP、Ca²⁺ およびクレアチンキナーゼについて測定した。その結果、タンシノン-6は心筋虚血時における幾多の障害を修復するにあたり、有効な化合物であること

が証明された。「冠心二号」の名で中国で狭心痛心筋梗塞の治療薬として処方されている丹参から、タンシノン-6を単離したことは意味深い。

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