

腎障害家兎におけるフロセミドの血漿
タン白結合：内因性タン白結合阻害物
質の検討

池田 勝巳* 吉富 博則, 中山 太二*
後藤 茂* 木村聡城郎*

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**Plasma Protein Binding of Frusemide in Renal
Failure Rabbits: Investigation of Endogenous
Protein Binding Inhibitors**

Katsumi IKEDA*, Hironori YOSHITOMI, Taiji NAKAYAMA*,
Shigeru GOTO**, and Toshikiro KIMURA*

ABSTRACT The reduction mechanism of frusemide-protein binding in the plasma of renal failure was investigated. The drug-albumin binding was inhibited by the low molecular-weight fraction obtained from acute renal failure rabbits, suggesting the presence of the inhibitors in the plasma. Further, this fraction was divided into six subfractions by Bio-Gel P-2. Fraction II and V₂ showed significant inhibition of the protein binding of frusemide. Among uraemic toxins, four indole derivatives markedly inhibited the protein binding. Analysis by HPLC confirmed that the concentration of indican was markedly increased in acute renal failure rabbit plasma. It is suggested that this compound could be one of the major inducers of the protein binding defect.

抄録 腎障害時のフロセミド血漿タン白結合低下の原因を検討した。急性腎障害家兎血漿の低分子分画によりフロセミドのアルブミンとの結合は阻害された。Bio-Gel P-2により更に小分画した結果、少なくとも2種の阻害物質のあることが分かった。尿毒性物質であるインドール誘導体は強くタン白結合を阻害する。腎障害家兎血漿では indican の濃度が顕著に増加し、この物質がタン白結合阻害を引き起こすものの一つであることが示唆された。

* Faculty of Pharmaceutical Sciences, Okayama University 岡山大学薬学部
** Faculty of Pharmaceutical Sciences, Kyushu University 九州大学薬学部