

天然高分子サプリメントに対する薬物の結合性評価

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Investigation of Binding of Drugs with Natural Polymer Supplements

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ABSTRACT : In order to clarify the interaction between drugs and natural polymer supplements, the binding tendency of warfarin, ketoprofen and chlorpromazine with six kinds of commonly used natural polymer supplements-low molecular weight alginate, chitosan, guar gum degradation products, wheat albumin, dietary fiber derived from beer yeast and indigestible dextrin were investigated by means of ultra-filtration. Binding between chitosan and warfarin was found to be dose-dependent and binding between all of the drugs and chitosan was found to vary with type of chitosan product. In this regard, among widely available products, some hardly bound to the drugs at all whereas others bound very easily. These results suggest that the absorption of drugs could be inhibited when natural polymer supplements are taken simultaneously. Therefore, patients taking physiologically active drugs such as warfarin or TDM drugs should be instructed to avoid polymer supplements.

抄録 今回、我々は天然高分子サプリメントに対する薬物の結合能を限外濾過法により評価した。その結果、特にキトサンにおいて薬物結合の阻害現象が観察された。また、この結合は、キトサンの種類により変動することが明らかとなった。今回得られた知見は今後サプリメントを服用する上で、薬物との相互作用を考慮した投与設計が必要不可欠になってくるものと考えられる。

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