# カードランの放出制御製剤への応用. III. 徐放性坐剤からのin vitro薬物放出

菅家甫子、田辺恵美、片山博和、
香田葉子、吉富博則

*Biol. Pharm. Bull.*, Vol. 18(8), 1154–1158(1995)

**Application of curdlan to controlled drug delivery. III. Drug release from sustained release suppositories in vitro**

Motoko Kanke, Emi Tanabe, Hirokazu Katayama,
Yoko Koda and Hironori Yoshitomi

**ABSTRACT** The use of curdlan, a natural β-1,3-glucan, in the preparation of sustained release suppositories was studied in vitro. To prepare the suppositories, indomethacin, predonisolone or salbutamol sulfate was mixed with curdlan gel. Preparation conditions, including heating time and curdlan concentrations of 5 and 10 %, had little effect on the drug release. The tonicity(hypotonic or isotonic) of the media for the suppository preparation and for in vitro drug release study also had little effect on drug release. However, the heating temperature during gel preparation, the drug amount in the suppository and the type of release media did affect drug release. It was found that drug release was sustained and diffusion-controlled in the three drugs. And finally, curdlan can be applicable for use in a suatained release suppository.

**抄録** カードランのゲル形成能を利用して徐放性坐剤基剤への応用を試みた。ゲル調製条件のうち、加熱時間、カードラン濃度、坐剤調製に用いる溶媒の浸透圧は薬物放出に影響しなかった。一方、加熱温度、坐剤中の薬物量は薬物放出の制御因子であった。坐剤からの薬物放出は薬物が坐剤中を拡散する過程が律速であることを示した。