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Study on Absorption of Indomethacin from Sustained-Release Suppositories Containing Hydrogenated Soybean Lecithin in Rabbits.

TOSHIAKI NAKAJIMA, YASUJI TAKASHIMA, ATSUSHI FURUYA,
YASUO OZAWA, YOSHIKI KAWASHIMA*

The absorption of indomethacin (IM) from suppositories containing hydrogenated soybean lecithin (HL) after rectal administration in rabbits was investigated with the aim of producing sustained-release suppositories. The suppositories were prepared by the fusion method with IM, HL and Witepsol® H-15(H-15). The IM release rate from the suppositories (IM 10mg, HL 200mg, total weight 1g) was faster than that of the control suppositories without HL.

The release of IM from the suppositories (IM 10mg, HL 300mg or 350mg) showed slow-release profiles.

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Effectiveness of Sodium Sugar Sulfates on Acute Toxicity of Paraquat in Mice.

TERUO TSUCHIYA, KATSUYUKI NAGAI, TAKAMASA YOSHIDA,
TADASHI KIHU, SHIGEO UKAI*

The reduction of acute toxicity of paraquat dichloride(PQ) in mice was studied by several sodium sugar sulfates such as dextran sulfate (DS), cellulose sulfate(CS), chondroitin sulfate (CDS), sucrose sulfate(SS) and glucose sulfate (GS). When sugar sulfates (DS, CS, SS or GS, 2000 mg/kg) were given orally immediately after PQ ingestion (200 mg/kg), the survival rates were 100% respectively on the 14th day after PQ ingestion. The survival rates in an earlier treatment were greater than those in a later treatment. The effectiveness of SS and GS in preventing PQ toxicity was similar to that of DS. These results suggested that SS, GS and DS might serve as an antidote for acute toxicity of PQ.

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Preparation and Mass-Spectral of O-Hydroxyethyl Derivatives of D-Glucose.

KATSUYUKI NAGAI, ATSUKO HONDA, TADASHI KIHU, SHIGEO UKAI*

Various hydroxyethyl ethers of D-glucose have been prepared in good yield by treating D-glucose derivatives with 2-bromoethyl tetrahydropyranyl ether in the presence of sodium hydride. The derived O-(hydroxyethyl)-D-glucitol acetates exhibited characteristic mass-spectral fragments. The furanose and pyranose forms of 1,2-O-ethylene-D-glucose derived from 2-O-(2-hydroxyethyl)-D-glucose were identified by mass-spectral analysis.