The Reversible Mode of Action of YH1885

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YH1885 is a potent acid pump antagonist as an antiulcer agent being developed by Yuhan Research Center. We compared the mode of action of YH1885 and omeprazole on gastric vesicles isolated from pig by washout method. To examine the mode of action of YH1885 in animals, we measured the effect of 7 days repeat-dosed YH1885 on plasma gastrin level in rats and dogs. The H⁺/K⁺-ATPase activity of gastric vesicle treated by YH1885 was completely recovered after washout, while that treated by omeprazole was strongly suppressed even after washout as reported. Plasma gastrin levels in rats and dogs were reached peak levels at 4 hr after the drug treatment, then began to decrease to normal level until 24 hr after the treatment. Increasing extent of plasma gastrin level showed a tendency of dose-dependent manner. Furthermore plasma gastrin levels had never reached to steady state during the whole treatment period. These results indicated that YH1885 is a reversible acid pump antagonist.

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Rhenium-188 tin colloid as a new radiation synovectomy agent

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Radiation synovectomy has been shown to be an effective treatment for the rheumatoid arthritic knee. In this study, we performed toxicity, stability and biodistribution study to evaluate the suitability of rhenium–188 tin colloid as a synovectomy agent. Intravenous (i.v.) injection in ICR mice and intra articular injection in SD rats were conducted to evaluate the acute toxicity of rhenium–188 tin colloid. LD(50) value of rhenium–188 tin colloid in i.v. toxicity test was 60.9 mCi/kg. In rats, mild toxicity including skin and synovium inflammation was observed in the radioactivity of 15 mCi/kg at intra–articular injection site, but systemic toxicity was not observed. Also In vitro stability tests showed that rhenium–188 tin colloid remained in colloid form without critical size variation over a 2–day period. Intra–articular injection of rhenium–188 tin colloid into normal rat joints was followed by gamma counting to quantify the leakage. The mean retention percentage of rhenium–188 tin colloid in normal rat joint was 98.7% at 1 day. In addition, the biodistribution study in rats showed that the highest radioactivity outside the injected knees was in the liver. Our preliminary results indicate that rhenium–188 tin colloid may be an effective radiopharmaceutical for synovectomy.

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The chronic administration of green tea extract affects the levels of brain neurotransmitters in senescence accelerated mouse

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