represent a structurally and functionally diverse group of membrane proteins. These channels play an important role in determining the length of the cardiac action potential and are the targets for antiarrhythmic drugs. Many K+ channel genes have been cloned from human myocardium and functionally contribute to its electrical activity. One of these channels, Kv1.5, is one of the more cardiovascular-specific K+ channel isoforms identified to date and forms the molecular basis for an ultra-rapid delayed rectifier K+ current found in human atrium. Thus, the blocker of hKv1.5 is expected to be an ideal antiarrhythmic drug for atrial fibrillation. In the present study, we examined the effect of the extracts from many kinds of plants on the hKv1.5 current expressed in Ltk-cells using whole cell mode of patch clamp techniques. We found out that chelidonine isolated from Chelidonium majus inhibited the hKv1.5 current expressing predominantly in human atrium without affecting the HERG current expressing mainly in ventricle. Additionally, chelidonine prolonged the action potential durations of atrial, ventricular myocytes and Purkinje fibers in a dose-dependent manner. The effect of chelidonine on atrial APD was frequency-dependent whereas the effect of chelidonine on the APDs of ventricular myocytes and Purkinje fibers was not frequency-dependnet. In contrast, a well-known antiarrhythmic drug, dofetilide, prolonged the APDs slightly in frequency-independent manner. These results strongly suggest that chelidonine could be an ideal drug for atrial fibrillation.

[PA1-5] [ 04/17/2003 (Thr) 14:00 - 17:00 / Hall P ]

## Prevalence of resistance to macrolide, lincosamide, streptogramin and ketolide antibiotics against Gram-positive bacteria in Korea

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The purpose of this study is to investigate the prevalence of resistance to macrolide, lincosamide, streptogramin and ketolide antibiotics in Korea. The antibiotic susceptibility test was performed to the macrolide erythromycin, clarithromycin, azithromycin, josamycin, the lincosamide clindamycin, the streptogramin synercid and the ketolide ABT-773 against 337 clinical Staphylococcus aureus(SAU), Coagulase-negative Staphylococci (CNS) and Enterococci isolates exhibited an average percentage of 64%, 56%, and 81% of resistance to erythromycin, respectively.

[PA1-6] [ 04/17/2003 (Thr) 14:00 - 17:00 / Hall P ]

## Metabolism of Rutaecarpine by Rat Liver Microsomes

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Rutaecarpine is an alkaloid originally isolated from the unripe fruit of Evodia rutaecarpa. In addition to its traditional use in treatment of gastrointestinal disorders, rutaecarpine has recently been characterized to have anti-inflammatory activity through cyclooxygenase-2 inhibition. More recently, to develop rutaecarpine as an anti-inflammatory agent, total synthesis of rutaecarpine has successfully been established in our group. In the present study, metabolic fate and cytochrome P450s involved in the metabolism of rutaecarpine was partially investigated in rat liver microsomes. When rutaecarpine was incubated with rat microsomes, 5 major peaks were detected on an LC/MS/MS. Two peaks (M1/M2) were believed to be a metabolte hydroxylated on