

薬剤性 QT 延長症候群に関するデータベースの構築

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[特 別 掲 載]

Development of a Database for Drug-induced Long QT Syndrome

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(Received November 11, 2005)
(Accepted December 25, 2005)

Abstract

Objective: The long QT syndrome (LQTS) is characterized by prolongation of the QT interval, causing torsades de pointes and sudden cardiac death. LQTS is caused by various drugs, so it is important to determine new and effective means of info-service to prevent it. We assessed the incidence of drug-induced LQTS, searched for the drugs which cause it by drug interaction, and developed a search engine database.

Design and Methods: As a test data, we extracted the drugs which cause LQTS by drug interaction and the reported case reports. Drugs which are known to cause LQTS by drug interaction were looked up in package inserts in Japan. A literature search was done to identify articles that presented data on drug-associated LQTS events. Based on the information, a database was developed.

Results: 27 drugs were found in package insert research, and 129 case reports were found in the literature. The database was designed to allow users to: (1) search for the drugs which cause LQTS due to drug interaction and the mechanism of interaction (e.g., metabolic inhibition, the additive action of administration of two or more medicines causing LQTS, etc.); (2) search for case reports of drug-associated LQTS; and (3) read such reports and the information on package inserts.

Conclusions: We can grasp the pertinent information on drug-induced LQTS systematically and quickly with this database. We anticipate this system will also have a wide range of application for other adverse events.

Key words: Long QT Syndrome, drug interaction, database