

Incidence, characteristic and risk factors of drug-induced liver injury in hospitalized patients: a matched case-control study

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Abstract

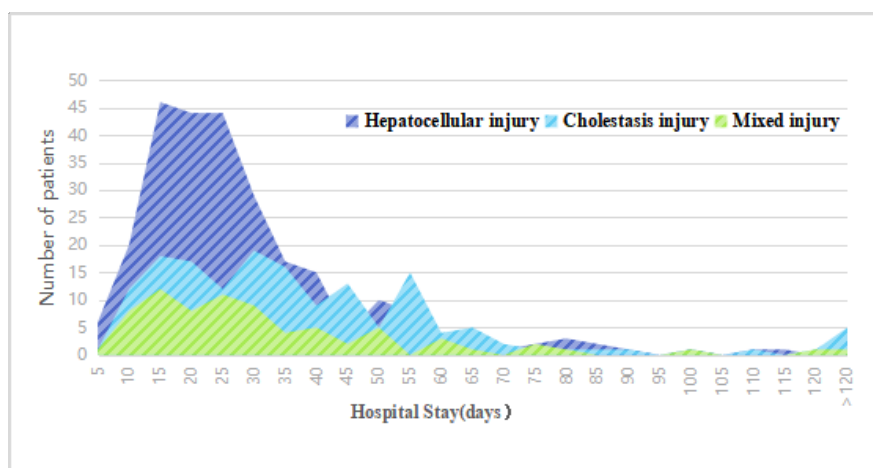
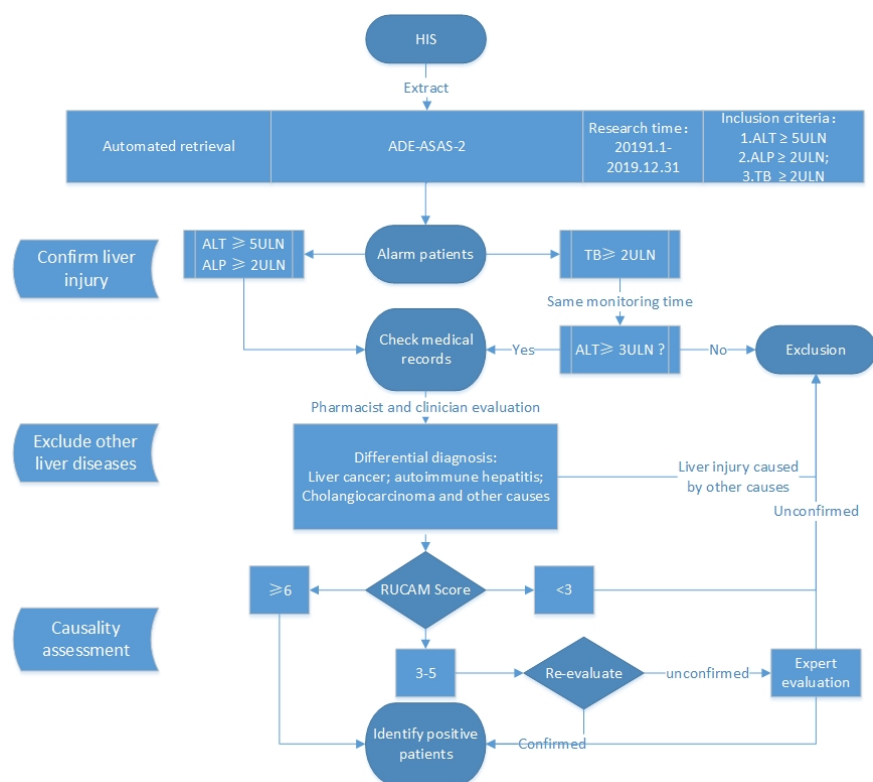
Abstract: Aims: The diagnosis of drug-induced liver injury (DILI) is relatively complex, involving a wide variety of drugs. The purpose of this study is to use algorithms to quickly screen DILI patients, count incidence rates and find risk factors. Methods: The Adverse Drug Events Active Surveillance and Assessment System-2 was used to extract the data of hospitalized patients in 2019 according to the set standards, then the RUCAM was used to evaluate patients who meet the standards. A retrospective case-control study was conducted according to suspected drugs, length of hospital stay, height and weight matched controls, and logistic regression was used to find risk factors. Results: Among the 156,570 hospitalized patients, 480 patients (499 cases) of DILI were confirmed, and the incidence of DILI was 0.32%. Anti-infective agents, antineoplastic agents, non-steroidal anti-inflammatory drugs (NASIDs) were the major category of causative drugs causing DILI, and the highest incidence of DILI caused by agent of voriconazole. The latency period and hospital stay of patients with cholestasis was relatively long. Patients with hyperlipidemia (AOR: 1.884), cardiovascular disease (AOR: 1.465), pre-existing liver disease (AOR: 1.827) and surgical history (AOR: 1.312) were likely to be risk factors for DILI. Conclusions: The incidence of DILI in hospitalized patients was uncommon (0.32%), and its pathogenic drugs were widely distributed. LiverTox's information could assist in the diagnosis of DILI. The incidence of DILI in many drugs was seriously underestimated. It is recommended to focus on patients with hyperlipidemia, cardiovascular disease, pre-existing liver disease, and surgical history.

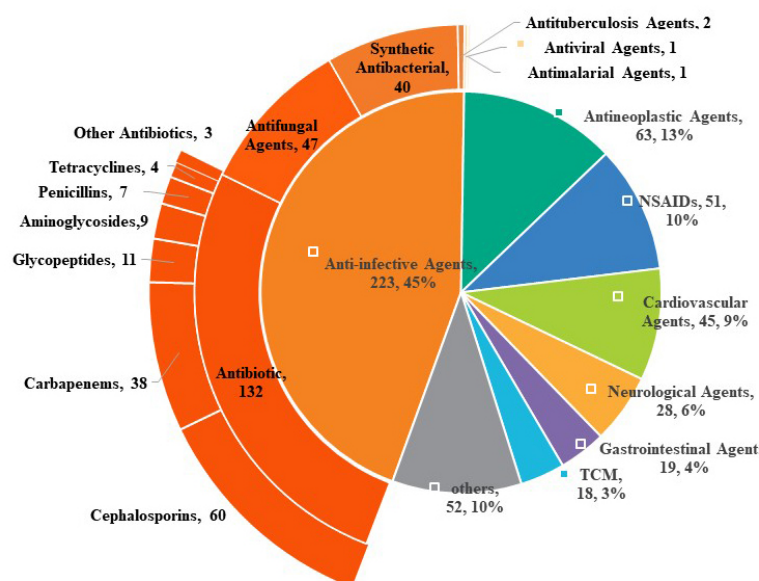
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Table 1 Baseline information of 499 drug.pdf available at <https://authorea.com/users/388973/articles/503680-incidence-characteristic-and-risk-factors-of-drug-induced-liver-injury-in-hospitalized-patients-a-matched-case-control-study>

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Table 2 Characteristics of patients with different.pdf available at <https://authorea.com/users/388973/articles/503680-incidence-characteristic-and-risk-factors-of-drug-induced-liver-injury-in-hospitalized-patients-a-matched-case-control-study>

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Table 3 The distribution of the first suspected ag.pdf available at <https://authorea.com/users/388973/articles/503680-incidence-characteristic-and-risk-factors-of-drug-induced-liver-injury-in-hospitalized-patients-a-matched-case-control-study>

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Table 4 Case and control information after matchi.pdf available at <https://authorea.com/users/388973/articles/503680-incidence-characteristic-and-risk-factors-of-drug-induced-liver-injury-in-hospitalized-patients-a-matched-case-control-study>

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Table 5 Logistic regression results of DILI.pdf available at <https://authorea.com/users/388973/articles/503680-incidence-characteristic-and-risk-factors-of-drug-induced-liver-injury-in-hospitalized-patients-a-matched-case-control-study>