Posted on 18 Nov 2022 — The copyright holder is the author/funder. All rights reserved. No reuse without permission. — https://doi.org/10.22541/au.166877841.14496671/v1 — This a preprint and has not been peer reviewed. Data may be preliminary.

Risk of liver injury after tigecycline therapy in China: real-world evidence based on large samples

chengchun zuo[1], Xiaoping Shi[1], Qian Lv[1], Xiao Li[1], and Qing Xu[1]

[1]Zhongshan Hospital Fudan University

November 18, 2022

Abstract

Abstract: Minor hepatic impairment might already exist before meeting the diagnostic criteria for tigecycline-induced liver injury. To clarify the process, we performed a retrospective study among 1054 adult inpatients treated with tigecycline to evaluate characteristics of each indicator for liver function tests (LFTs) during the course. Indicators of LFTs contained serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), gamma-glutamyltransferase (GGT), and total bilirubin (TB). Incidence of each indicator abnormality and dynamic changes of severity grading during the course were evaluated respectively. Multiple logistic analysis was applied to identify independent risk factors associated with abnormal LFTs. 798 patients were finally included. Values of first and peak abnormalities were significantly increased compared with those at baseline. Gender was considered an independent factor for abnormal ALT (OR=0.544, P=0.001), AST (OR=0.652, P=0.012) and GGT (OR=0.582, P=0.006). High maintenance dosage (100mg twice daily) and prolonged duration (>14 days) were independent risk factors for abnormal ALT, AST, ALP, and GGT (P=0.000 for all parameters). Furthermore, surgery (OR=1.513, P=0.005) and abnormal baseline LFTs (OR=1.372, P=0.037) were independent risk factors for abnormal TB. The current study first depicted characteristics of abnormal LFTs during tigecycline therapy, facilitating early detection of liver injury.

Hosted file

`Manuscript.doc` available at https://authorea.com/users/525802/articles/596040-risk-of-liver-injury-after-tigecycline-therapy-in-china-real-world-evidence-based-on-large-samples