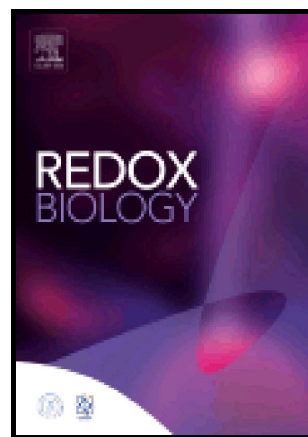


Author's Accepted Manuscript

Mechanisms of acetaminophen-induced liver injury
and its implications for therapeutic interventions

Mingzhu Yan, Yazhen Huo, Shutao Yin, Hongbo
Hu



www.elsevier.com/locate/redox

PII: S2213-2317(18)30190-3
DOI: <https://doi.org/10.1016/j.redox.2018.04.019>
Reference: REDOX914

To appear in: *Redox Biology*

Received date: 6 March 2018
Revised date: 18 April 2018
Accepted date: 18 April 2018

Cite this article as: Mingzhu Yan, Yazhen Huo, Shutao Yin and Hongbo Hu,
Mechanisms of acetaminophen-induced liver injury and its implications for
therapeutic interventions, *Redox Biology*,
<https://doi.org/10.1016/j.redox.2018.04.019>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Mechanisms of acetaminophen-induced liver injury and its implications for therapeutic interventionsMingzhu Yan¹, Yazhen Huo², Shutao Yin¹, Hongbo Hu^{1*}**Affiliations:**

¹Beijing Advanced Innovation Center for Food Nutrition and Human Health, College of Food Science and Nutritional Engineering, China Agricultural University, Beijing, China.

²State Key Laboratory of Biomacromolecules, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China.

Corresponding author

* Hongbo Hu, Ph.D.

Phone: (86)-10-62738653,

Email: hongbo@cau.edu.cn

No17 Qinghua East Road, Haidian District, Beijing 100083, China

Abstract

Acetaminophen (APAP) overdose is the leading cause of drug-induced acute liver failure in many developed countries. Mitochondrial oxidative stress is considered to be the predominant cellular event in APAP-induced liver injury. Accordingly, N-acetyl cysteine, a known scavenger of reactive oxygen species (ROS), is recommended as an effective clinical antidote against APAP-induced acute liver injury (AILI) when it is given at an early phase; however, the narrow therapeutic window limits its use. Hence, the development of novel therapeutic approaches that can offer broadly protective effects against AILI is clearly needed. To this end, it is necessary to better understand the mechanisms of APAP hepatotoxicity. Up to now, in addition to mitochondrial oxidative stress, many other cellular processes, including phase

Download English Version:

<https://daneshyari.com/en/article/8286376>

Download Persian Version:

<https://daneshyari.com/article/8286376>

[Daneshyari.com](https://daneshyari.com)