Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **31** (2): 195-9 (2012)

Regular Article
Received: February 1, 2012
Revised version: February 16, 2012
Accepted: February 19, 2012

Chemical Constituents from *Ampelopsis sinica* var. *hancei* Prevent Liver Damage

Linyi DONG [1], Yunhui ZHANG [1], Binfeng CHENG [2], Yanan WU [3], Yong LI [4], Huankai YAO [4]* &Yan LI [4]*

[1] *School of Pharmaceutical Science and Technology, Tianjin University, Tianjin 300072, P. R. China*
[2] *College of Pharmacy, Nankai University, Tianjin, 300071, P. R. China*
[3] *Patent Examination Cooperation BeiJing Center, State Intellectual Property Office of the People's Republic of China , Beijing, 100083, P. R. China*
[4] *School of Pharmacy, Xuzhou Medical College, Xuzhou, Jiangsu 221004, P. R. China*

SUMMARY. Antihepatotoxic chemical constituents from the roots of *Ampelopsis sinica* var. *hancei* (pl.) W.T. Wang was investigated- Chromatography was used to isolate chemical constituents and their structures were elucidated on the basis of spectroscopic analysis. Antihepatotoxic activity of these compounds in rats was carried out after the establishment of CCl_4 induced liver injury. Phytochemical investigation on the roots of *Ampelopsis sinica* var. *hancei* (pl.) W. T. Wang resulted in the isolation of eight compounds including β-sitosterol (**1**), β-daucosterol (**2**), lupeol (**3**), *trans*-resveratrol (**4**), piceid (**5**), gallic acid (**6**), *n*-butyl gallate (**7**) and (+)-catechin (**8**). Rats treated with the compounds **6-8** showed significant ($p < 0.05$) protection of liver as evidence from normal AST and ALT levels. LDH levels were significantly ($p < 0.05$) reduced by the treatment with the compounds **5**, **7** and **8**. In addition, MDA levels were significantly ($p < 0.05$) increased with gallic acid (**6**) and (+)-catechin (**8**). All the chemical constituents were isolated from *Ampelopsis sinica* var. *hancei* (pl.) W.T. Wang for the first time. Compounds **5-8** showed significantly antihepatotoxtic activity in CCl_4-induced liver damage rats.

KEY WORDS: Ampelopsis sinica var. *hancei* (pl.) W.T. Wang, antihepatotoxic activity, chemical constituents, Vitaceae.

* Authors to whom correspondence should be addressed. *E-mails:* hkyao@xzmc.edu.cn (H. Yao) or liyan@xzmc.edu.cn (Y. Li)