**Letter to Editor**

**A response to** Kulkarni AV, Hanchanale P, Prakash V, Kalal C, Sharma M, Kumar K, Bishnu S, Kulkarni AV, Anand L, Patwa AK, Kumbar S. Tinospora cordifolia (Giloy) induced liver injury during the Covid‐19 pandemic‐Multicenter nationwide study from India. Hepatology Communications. 2022 Jan 17.

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In the January 2022 edition of *Hepatology Communications*, Kulkarni AV et al reported that herb-induced liver injury due to *Tinospora Cordifolia* (*Giloy*) is an important cause of autoantibody-mediated acute hepatocellular jaundice and recommend that in cases of acute (nonviral) hepatitis, recent or long-term exposure to herbals containing *Giloy* must be actively sought out as a probable cause.

We find the article has generalized the lack of safety of a widely used herb in Ayurveda based on one insufficiently designed retrospective study. The study enrolled 49 patients with liver injury and associated history of *Giloy* use without providing details of the total number of patients screened or reasons for excluding patients (if any). A surprisingly low number of patients (N=43) were included in the final analyses considering that patients were recruited from 13 tertiary-care hospitals in nine locations over a 16-month period.

Although recommended for RCTs, the CONSORT statement extension for herbal interventions clearly provides the details of information that is required to determine, with specificity, the key characteristics of the product used.[[1]](#endnote-1) The most critical step in any study involving herbal interventions is for the authors to completely describe the product used to ensure authentication of the raw material (i.e., how done and by whom) especially when making strong claims pertaining to the safety of the substance. The authors have relied on patient testimony to conclude that the patients consumed *Giloy* and chemical and toxicology analysis were conducted on raw herb and drug samples retrieved from only six out of the total 43 patients, which is at variance with well-researched guidelines that are already available for the diagnosis and management of herb-induced liver injury.[[2]](#endnote-2)

The prevalence of acute hepatitis is more in the US and Europe than in India even as *Giloy* is part of multiple Ayurvedic formulations widely prescribed by over 450 thousand registered Ayurveda practitioners in the country.[[3]](#endnote-3) In the introduction authors state that ‘Ayurvedic herbal medicines are well known to cause hepatoxicity’ by citing a single previously published case-series of the senior author himself. The authors argue that B cells play an active role in the pathogenesis of autoimmune hepatitis (AIH), and B-cell depletion is beneficial for AIH remission in preclinical studies and that *Giloy* phytochemicals could unmask AIH in patients with quiescent chronic AIH. This is a controversial argument because the role of B cells in AIH is still not clear and the pathogenesis of AIH is not fully understood.[[4]](#endnote-4) It is not possible to make conclusive predictions about the clinical response of an herbal compound used as whole in a classical formulation based on the action one single phytochemical extracted from the herb and used in isolation in a laboratory.

1. Gagnier JJ, Boon H, Rochon P, Moher D, Barnes J, Bombardier C. Recommendations for reporting randomized controlled trials of herbal interventions: explanation and elaboration. J Clin Epidemiol 2006; 59(11):1134-1149. [↑](#endnote-ref-1)
2. Wang JB, Zhu Y, Bai ZF, Wang FS, Li XH, Xiao XH; Branch Committee of Hepatobiliary Diseases and Branch Committee of Chinese Patent Medicines, China Association of Chinese Medicine. Guidelines for the Diagnosis and Management of Herb-Induced Liver Injury. Chin J Integr Med. 2018 Sep;24(9):696-706. [↑](#endnote-ref-2)
3. Lin NH, Yang HW, Su YJ, Chang CW. Herb induced liver injury after using herbal medicine: A systemic review and case-control study. Medicine (Baltimore). 2019 Mar;98(13):e14992. [↑](#endnote-ref-3)
4. Liu X, Jiang X, Liu R, Wang L, Qian T, Zheng Y, et al. B cells expressing CD11b effectively inhibit CD4 T cell responses and ameliorate experimental autoimmune hepatitis. Hepatology 2015;62:1563-1575. [↑](#endnote-ref-4)