Review of: "Haematological and Biochemical Patterns in the Liver Function of a Syrup Made From Vitex Doniana Fruit"

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Potential competing interests: No potential competing interests to declare.

In the paper titled "Haematological and Biochemical Patterns in the Liver Function of a Syrup Made From Vitex Doniana Fruit," Akharaiyi et al. have utilized advanced analytical chemistry techniques to explore the effects of a specific fruit syrup. I particularly appreciated the breadth of topics addressed, which was presented with notable clarity—a rarity in many studies. The fields of health and food science are rapidly evolving, necessitating the increasing use of new methods and analytical techniques for effective monitoring and problem-solving. Employing NMR and mass spectrometry in metabolomics analyses is among the most effective of these approaches. To enhance this paper, the authors should consider the following references:

There is significant potential in this research area, especially within metabolomics, given the recent advances in analytical and spectroscopic methods used for identifying both natural compounds and potential pollutants in various biological tissues (see Molecules, 2020 Oct 9;25(20):4597. doi: 10.3390/molecules25204597). Recent advancements in NMR spectroscopy have deepened our understanding of potentially active or toxic compounds on a molecular level, allowing for both targeted and untargeted analyses (refer to Metabolites, 2019 Jun 27;9(7):123. doi: 10.3390/metabo9070123). These studies provide complementary data crucial for identifying useful biomarkers. Additionally, noteworthy improvements in the sensitivity and resolution of NMR-based metabolomics (see RSC Adv. 2021 Feb 25;11(15):8694-8700. doi: 10.1039/d1ra01103k and Mol Omics. 2021 Oct 11;17(5):719-724. doi: 10.1039/d1mo00118c) open new avenues for a more comprehensive approach to addressing key issues in food science and medicine.

Moreover, there remains scope for further refinement of this commendable work on the active and biochemically significant compounds in our food and their sources. To further enhance this study, the authors should incorporate findings from recent research across different food types. The publication listed below provides a thorough review of recent advancements in food metabolomics and would be beneficial if succinctly summarized in the paper:

Foods 2021, 10(6), 1249; https://doi.org/10.3390/foods10061249 - This detailed review on food metabolomics, which encompasses the latest developments in the field, should be concisely integrated into a brief paragraph within the study.

Implementing the aforementioned changes will undoubtedly make this work more appealing to a wider audience.