

The hepatitis healing power of blueberry leaves

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A chemical found in blueberry leaves has shown a strong effect in blocking the replication of the Hepatitis C virus, opening up a new avenue for treating chronic HCV infections, which affect 200 million people worldwide and can eventually lead to cirrhosis and liver cancer.

Among the areas of especially high Hepatitis C incidence is the Miyazaki prefecture of southern Japan, a trend that led Hiroaki Kataoka and colleagues at the University of Miyazaki and elsewhere in Japan on a search for better treatment options. Currently, there is no vaccine for HCV, and though a combination drug regimen can clear HCV infection, this treatment is only about 60% effective on average and poses risks of severe side effects.

Kataoka and colleagues believed that since HCV is localized in the liver and can take 20 years or more to develop into disease, a dietary supplement might help slow or stop disease progression. So they screened nearly 300 different agricultural products for potential compounds that suppress HCV replication and uncovered a strong candidate in the leaves of rabbit-eye blueberry (native to the southeastern US).

They purified the compound and identified it as proanthocyanidin (a [polyphenol](#) similar to the beneficial chemicals found in grapes and wine). While proanthocyanidin can be harmful, Kataoka and colleagues noted its effective concentration against HCV was 100 times less than the toxic threshold, and similar chemicals are found in many edible

plants, suggesting it should be safe as a dietary supplement. In the meantime, the researchers now hope to explore the detailed mechanisms of how this chemical stops HCV replication.

More information: "Proanthocyanidin from [Blueberry](#) Leaves Suppresses Expression of Subgenomic [Hepatitis C Virus](#) RNA" by Masahiko Takeshita, Yo-ichi Ishida, Ena Akamatsu, Yusuke Ohmori, Masayuki Sudoh, Hirofumi Uto, Hirohito Tsubouchi, and Hiroaki Kataoka. Article link: www.jbc.org/cgi/content/full/284/32/21165

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