

Supplementary Material

Supplementary Methods

Three cases of AKI with Fanconi syndrome, considered to be caused by red yeast rice supplements, were admitted to our hospital between December 2023 and February 2024. The health check diagnosed all patients with dyslipidemia and noted their use of specific “red yeast rice” supplements. All patients had no other medications. We report the clinical course and kidney biopsy findings of three cases.

Supplementary Figure 1. Appearance of red yeast rice.



Supplementary Figure 2. *Tofuyo*, a food that has been passed down through generations in Okinawa, Japan.



Supplemental Discussion

Following our report, patients who took the same supplement by April 2024 reported five deaths and >250 hospitalizations.^{S3} However, there have been no reports of health problems from red yeast rice supplements manufactured by other companies.

It is safe to eat red yeast rice that has been traditionally made by solid-state fermentation with red yeast fungi. This assertion is backed by its extensive use in Asian diets over centuries and rigorous safety evaluations, such as mutagenicity, acute toxicity, and chronic toxicity tests, conducted by manufacturers. In addition, processed foods containing red yeast rice have been commercially available in Japan for over two decades without reported safety incidents. The safety of red yeast pigment, an industrially produced food additive derived from these fungi, is further validated by various toxicity tests adhering to legal standards.² A lot of research has shown that eating foods with 100 or 200 mg of red yeast rice every day lowers LDL cholesterol and total cholesterol levels in the blood without changing HDL cholesterol, triglyceride levels, or other safety parameters^{S4}. European clinical trials have observed significant improvements in hypercholesterolemia when individuals consumed red yeast rice containing 3–10 mg of monacolin K.^{S5, S6} Along with lowering lipid levels, red yeast rice can also make helpful polyketide derivatives, such as monascumic acid and gamma-aminobutyric acid (GABA). The *Monascus* pigments found in red yeast rice possess antibacterial and anticancer characteristics, while GABA contributes to the regulation of blood pressure.^{S7, S8} Moreover, it has been shown that fermented rice bran with *Monascus* increases phenolic acid content and enhances antioxidant activity.^{S9}

Supplementary References

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