Drug-induced liver injury (DILI) is one of the most common and serious adverse drug reactions. Idiosyncratic DILI is more common than intrinsic DILI and can be classified into hepatocellular injury, cholestatic injury, mixed hepatocellular-cholestatic injury, and vascular injury.\(^1\) *Lepidium meyenii* (Maca) has been intensively studied since its diverse repertoire of pharmacological properties. These experimental studies have not found any evidence of *in vivo* or *in vitro* toxicity associated with either long- or short-term consumption.\(^2\) Here, we reported a case of liver injury that was probably directly induced by Maca, suggesting that the safety of Maca should be evaluated by further studies.

A 30-year-old man was admitted to Kunming General Hospital of Chengdu Military Command on December 31, 2016, with abdominal distension, anepithymia, sour regurgitation, and eructation after drinking 300 ml of Maca medicinal liquor containing 50% (V/V) alcohol on one occasion 10 days ago. This was followed by jaundice lasting for one week. No known hepatotoxic medications had been taken in the previous month. He had no history of liver disease and had normal results of liver function test recorded in November 2016. No more symptoms were concomitant, such as skin itching, joint pain, epistaxis, or gingival bleeding. At presentation, physical examination showed medium jaundice, but no fever, rash, or any signs of chronic liver disease. His blood count revealed a white blood cell count of 2.8 \(\times\) 10\(^9\)/L (neutrophils 62.6%, lymphocytes 18.6%, and eosinophils 3.2%), and platelet count was 196 \(\times\) 10\(^9\)/L. Serum biochemical assay gave the following results: albumin 40 g/L, total bilirubin (TBIL) 83.7 \(\mu\)mol/L, direct bilirubin 60.1 \(\mu\)mol/L, alanine transaminase (ALT) 1886 U/L, aspartate aminotransferase (AST) 609 U/L, alkaline phosphatase 136 U/L, \(\gamma\)-glutamyl transpeptidase 125 U/L, total cholesterol 3.38 mmol/L, and triglyceride 2.93 mmol/L. Coagulation function tests showed a prothrombin time of 15.9 s and an international normalized ratio of 1.1. A urine test showed 2+ urobilin and negative urobilinogen. The feces had a normal appearance with negative occult blood. Tests for hepatitis A, B, C, and E were negative, and autoimmune markers including antinuclear and smooth muscle antibodies were also negative. The IgM anti-cytomegalovirus, IgM anti-Epstein-Barr virus viral-capsid antigen, and IgM anti-herpes simplex virus were all negative. Abdominal ultrasound and magnetic resonance testing were normal, and there was no evidence of fatty liver disease. Viral and autoimmune hepatitis were therefore excluded. The Roussel Uclaf Causality Assessment Method score was 9, which was consistent with highly probable DILI.

In the analysis of R value, our case was 44, suggestive of hepatocellular DILI. The severity of the liver injury was level 3.\(^3\) A diagnosis of DILI caused by Maca was made. Ursodeoxycholic acid capsules (Ursofalk), magnesium isoglycyrrhizinate injection, and ademetionine 1,4-butanedisulfonate injection (Transmetil) were administrated. Subsequently, his clinical indicators improved and the levels of ALT and AST gradually decreased since third day after medication. Furthermore, the TBIL gradually decreased after 14 days and finally became normal after three months. Even though bicyclol tablets were given for two months after discharge from hospital, his serum biochemical...
Timely withdrawal of the suspected liver-injuring drugs is the most important treatment strategy for DILI.[1] In most cases, the drugs should be withdrawn immediately after they are identified, and approximately 95% of patients will achieve spontaneous improvement and recover completely.[1] This patient’s clinical condition and the liver function tests gradually improved after admission. However, we were surprised that they did not completely normalize. A possible explanation from a prospective study in Spain showed that dyslipidemia is an independent risk factor for a prolonged recovery from DILI.[5] Thus, mild hypertriglyceridemia may be a reason for his prolonged recovery. Since the mechanism of Maca-induced DILI has not been established, more research should be carried out to determine whether Maca can cause DILI and whether some patients are more sensitive than others.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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