Goji berries expose patients taking vitamin K antagonists to the risk of bleeding. A few reports of bleeds and INR elevations have been published, including 4 cases reported in Germany (2,3). The mechanism underlying this interaction is unknown; cytochrome P450 inhibition has been postulated (1). According to the independent German pharmacovigilance centre Arznei-Telegramm, drinking three or four cups of goji tea daily or 30 ml of goji juice twice daily can increase INR levels and result in bleeding (1). This example serves as yet another reminder that patients taking a vitamin K antagonist must be informed that certain plants used as herbal remedies can interfere with its anticoagulant effect.

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**Goji berries and anticoagulants: bleeding**

- Informing patients is key.

Goji berries (Lycium barbarum), also known as wolfberries, are used in traditional Chinese medicine (1). Various beneficial properties have been attributed to them.

In early 2013, the Dutch pharmacovigilance centre Lareb published a report on 15 cases of small disorders attributed to terbinafine that are contained in its database (1). Eight patients had a taste disorder in addition to the smell disorder. These disorders developed one day to several weeks or even several months after exposure to terbinafine and in some cases, they did not resolve after terbinafine discontinuation.

Taste disturbance is a known adverse effect of terbinafine (2). Depending on the source, it has been estimated to occur in 0.6% to 2% of patients exposed to this drug (1,3). According to the US summary of product characteristics, these taste and smell disorders are sometimes prolonged or even permanent (3). The underlying mechanism is unknown (1).

In patients with superficial fungal infection, topical treatment is usually effective (3). Oral terbinafine is known to expose patients to the risk of sometimes serious adverse effects, such as skin reactions, hepatotoxicity or haematological disorders, and disabling conditions such as loss of taste or smell.

When terbinafine is nonetheless used, patients should be properly informed of the potential harms and advised to discontinue the drug if necessary.

**SSRI antidepressants: brain haemorrhage**

- Assess risk of serious bleeding before use.

So-called selective serotonin reuptake inhibitor (SSRI) antidepressants can cause bleeding, particularly in the gastrointestinal tract (1). The mechanism is thought to be mediated by serotonin, which is involved in platelet aggregation (2).

A meta-analysis of 16 epidemiological studies of brain haemorrhage was published in late 2012. Patients in the SSRI groups were more likely to experience intracranial haemorrhage than those in the control groups: estimated relative risk of 1.5 (95% confidence interval (95CI): 1.3 to 1.8). The increased risk seemed to concern intracerebral haemorrhage, but not subarachnoid haemorrhage. Concomitant treatment with an SSRI antidepressant and a vitamin K antagonist resulted in an increased risk of bleeding compared to treatment with a vitamin K antagonist alone (RR = 1.6, 95CI: 1.3 to 1.8).

In practice, this risk should be taken into account, especially in patients who already have bleeding disorders or a history of intracranial haemorrhage, or who are taking drugs known to increase the risk of bleeding.