

St. John's wort (*Hypericum perforatum*) and warfarin: Dangerous liaisons!

*Sarı kantaron (*Hypericum perforatum*) ve varfarinin tehlikeli birlikteliği*

To the Editor,

An 85-year-old male patient with a history of hypertension, old anterior wall myocardial infarction and atrial fibrillation was placed on warfarin one year previously. However, he did not comply with regular international normalized ratio (INR) measurements, but kept taking warfarin (5 mg) on a daily basis for almost a year without any problems. After watching a television program about herbal remedies, he decided to take St John's wort on his own initiative. One month later, he reported to the emergency service of our hospital with upper gastrointestinal bleeding. Initial blood work revealed hemoglobin (Hb): 7.9 g/dl, hematocrit (htc): 23%, and INR: 6.2. With supportive treatment of fresh frozen plasma and blood transfusions, the bleeding ceased. Later, an esophagogastroduodenoscopy showed no significant pathology. The patient was instructed not to use herbal remedies with prescription medications on discharge.

Herbal remedies are frequently used worldwide without medical or government control. Many toxic effects due to herbal remedies have been reported in the medical literature, especially when they are used in combination with prescribed medications.

Some have life-threatening side effects, as seen in our patient (1).

It is interesting to note that the combined use of St John's wort and warfarin usually causes neutralization of the effect of warfarin by increasing its metabolism via the P450 enzyme system (2). However, in our patient, reverse events occurred: the INR was increased and the patient developed a severe bleeding diathesis, which manifested itself with hematemesis and melena. This is a rare event (3).

It is thought that since St John's wort contains many active ingredients, namely hyperforin, flavonols, flavonol glycosides, biflavones, naphthodianthrones, acylphloroglucinols, and phenylpropanes, one or more combinations of these active ingredients might affect the drug metabolism of warfarin in sensitive individuals by potentiating its effect on the clotting cascade (4).

Herbal remedies should be considered as toxic as any other drug, and the public should be warned and informed about these effects via accumulation of such reports in the medical literature.

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