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EDITORIAL

How important is pharmacognosy for doctors and dentists?



Pharmacognosy is a biological science with therapeutic aspects that is an important part of the teaching content for pharmacists, but this knowledge is not always taught to other medical health professionals, such as doctors and dentists. Doctors and dentists mainly have knowledge about modern pharmacology and prescribe conventional drugs within the contexts of pharmacology and toxicology (Saeidnia and Abdollahi, 2013; Ghanemi, 2014c). However, because doctors and dentists must manage the health status of their patients and prescribe drugs, they should consider factors that could influence the effects of prescription drugs, including natural compounds and the active ingredients these compounds may contain. By natural compounds, we refer to products used as traditional, herbal, or natural therapies, as well as diet products. In fact, the active ingredients of natural compounds may influence the physiological and pathological status of patients and may interact with therapies when they are taken together.

Furthermore, a variety of drugs have been developed from natural products, indicating that compounds derived from natural products can have strong biological and pharmacological activities (Patwardhan, 2005). Indeed, different pharmacological properties have been linked to natural compounds and have been proposed as potential candidates for the development of therapeutic agents (Ghanemi and Boubertakh, 2014; Ghanemi, 2013, 2014b,d; Boubertakh et al., 2013). Therefore, as clinicians who prescribe medicines, doctors and dentists should be aware of these factors to select the best therapeutic approaches. In addition, they must guide their patients to avoid, or at least minimize, the interactions between natural compounds and prescribed drugs. Natural compounds may influence drug effects not only by interacting with a drug but also by modifying a drug's targets, such as membrane receptors (Ghanemi et al., 2013).

In addition, even in patients who are not prescribed therapy, doctors and dentists should explain the risks related to the use of natural products by clarifying that natural products

are not guaranteed to be safe and that foods and beverages can have pharmacological or toxicological effects. Thus, patients who consume natural compounds should pay attention to factors such as the timing, quantity, and frequency that they take these products with respect to prescribed drugs and with respect to their physiological or pathological status. As a related point, natural compounds can also influence the results of biomedical analyses on which prescriptions may be based because the chemicals in natural compounds may interact with cells or with laboratory reagents and lead to false results (Ghanemi 2014a,e).

In conclusion, the study of the pharmacological and toxicological properties of natural compounds is no less important for doctors (Simaan, 2009) and dentists than it is for pharmacists. More attention should be paid to topics regarding natural compounds within the faculty of medicine.

Conflict of interest

None declared.

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