Turkish Journal of Medical Sciences

Volume 46 | Number 4 Article 50

1-1-2016

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TÜBİTAK

Turkish Journal of Medical Sciences

http://journals.tubitak.gov.tr/medical/

Letter to the Editor

Turk J Med Sci
(2016) 46: 1275-1276

doi:10.3906/sag-1507-97

Herbal self-medication use in Type 2 diabetes mellitus

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Received: 13.07.2015 • **Accepted/Published Online:** 01.12.2015 • **Final Version:** 23.06.2016

To the Editor,

We read the article entitled "Herbal self-medication use in patients with diabetes mellitus type 2" by Damnjanovic et al. in a recent issue of the *Turkish Journal of Medical Science* with great interest (1). We thank Dr Damnjanovic and colleagues for their interesting and also important investigation on herbal self-medication use in type 2 diabetics. They reported that type 2 diabetics have used different types of herbal product in daily life. Especially they found 5 important herbal products usage: ginseng, garlic, aloe, cinnamon, and St. John's wort. We published a similar article about herbal therapy in type 2 diabetics in a Turkish diabetic population 2 years ago (2). Therefore, we wanted to make some comments on the article and this subject.

Prevalence of herbal treatment use is very high in Turkish diabetic patients. Approximately 1/3 of diabetic patients have used different types of herbal products. Damnjanovic et al. reported 5 different types of herbal products. We detected approximately 20 different types of herbal products in our diabetic patients. They have most commonly used cinnamon, pepino, *Prunus laurocerasus* leaf, chamomile tea, cabbage juice, pomegranate flower, mulberry leaves, garlic etc. (2). We did not detect any favorable effect on control of diabetes because HbA1c levels were similar in both the herbal treatment and nonherbal group. We also investigated the factors influencing the use of herbal treatment. Patients were dissatisfied with the current medical treatment due to ineffectiveness, side effects, and hypoglycemia. Therefore, they tended to use herbal treatment.

Dr Damnjanovic also reported that recommendations for herbal treatment arose from different sources. They reported that influencing decisions about herbal dietary supplements were media, friends, pharmacists, and physicians. We also detected similar findings. Advisers recommending herbal treatment in addition to medical therapy were as follows: neighbors or friends 45%, media 30%, health care workers (physicians and pharmacists) 13%, and herbalists 9%.

In Turkey, one third of type 2 diabetic patients have used many different forms and types of herbal treatments regularly. The most important factors influencing herbal treatment use were dissatisfaction with current diabetic medicine and its side effects. In addition, other important factors leading to patients' using herbal treatment were former users (friends, neighbors, and other patients) and the media.

In conclusion, although various herbal treatments could be used as adjunctive therapy in addition to the current medical treatment, due to lack of evidence-based data in this field, potential severe adverse effects can result in death, depending on improper use. Moreover, to prevent misuse of herbal treatments for diabetic patients, we also recommend more educational programs on television or in the press about diabetes treatment.

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Reply to Letter to the Editor:

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To the Editor,

We would like to thank Aydın et al. regarding our paper entitled "Herbal self-medication use in patients with diabetes mellitus type 2" published in the *Turkish Journal of Medical Sciences* in 2015 (1). We appreciate their critical appraisal of our article and read their letter with great interest.

Herbal self-medication in the diabetic population is common, and the purpose is to alleviate the symptoms of this chronic disease. In addition to the justified benefits provided by self-medication, it is necessary to recognize the occurrence of potential side effects and interactions between dietary supplements and conventional pharmacotherapy prescribed by a doctor in diabetic patients.

It is important to note that both conducted studies confirm a high presence and the significant role of the use of herbal dietary supplements among patients with diabetes mellitus. We are pleased that Aydın et al. recognized this issue as well and therefore conducted a similar study on the population of diabetic patients in Turkey. They indicated a significant influence of the mass media on the choice of herbal dietary supplements and that there was no statistically significant difference on HbA1c levels between patients who use regular herbal treatment or not. Furthermore, different forms of different herbs did not show any statistical significant influence on HbA1C levels (2). However, many previous studies regarding the use of herbal medicines in diabetic patients were conducted on animal models, which made us conclude that well designed clinical studies were needed.

It is interesting that the pepino (*Solanum muricatum*) is the most used plant in the study by Kutlucan et al. [2]. In Serbia this plant has not been used, because it has been only recently introduced into our flora, and herbal preparations are not present in our pharmacies. Furthermore, we do not use preparations based on *Prunus laurocerasus* probably due to the presence of cyanogenic heterosides in this drug and their potential toxicity (3).

We agree with our colleagues from Turkey about the important role of pharmacists and physicians in providing the correct and adequate information for proper application of herbal remedies. Thus, bearing in mind the results of conducted research, further investigation may be warranted to determine the potential role and influence of health care professionals' advice regarding the use of herbal dietary supplements in the population of patients with diabetes mellitus.

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