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Clavis Panax Induced Anxiety Disorder: A Case Report

CASE REPORT

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ABSTRACT

Herbal mixtures are frequently used by some patients as treatment options due to the belief that they do not have any side effects. This case report presents a male patient who used clavis panax in order to ameliorate his diabetes mellitus. In the third week of his clavis panax use, he was admitted to the hospital with complaints of uncontrollable worries about almost everything, restlessness, difficulty breathing, fatigue, and sleep disorder. Clavis panax-induced anxiety disorder is presented in this case report. Herbal preparations should be carefully evaluated in terms of their side effects, as well as their possible benefits.

Key words: Clavis panax, tribulus terrestris, avena sativa, panax ginseng, anxiety disorder, side effect

INTRODUCTION

Herbal mixtures have been among alternative and complementary health care practices from the past to the present. The possible effects of herbal mixtures on human health that are not prepared based on scientific evidence are unknown (1).

It is stated in the promotion of clavis panax that it contains a mixture of tribulus terrestris, avena sativa, and panax ginseng and that it has numerous benefits, such as regulating blood pressure, improving sexual functions, ameliorating psychical and psychological disorders, and decreasing blood glucose levels but no side effects (2).

In the previous literature related to clavis panax, some cases with sudden increases in INR and acute coronary syndrome were reported (3, 4). The side effects of this combination for psychiatric disorders have not been found in the past literature.

In this case report, anxiety disorder, resulting from the use of clavis panax by the patient to ameliorate his diabetes mellitus, is presented.

CASE REPORT

A 68-year-old married male patient was admitted to the psychiatry outpatient clinic with complaints of extreme uncontrollable worries about almost everything, restlessness, difficulty breathing, fatigue, sleep disorder, and weight loss. He had diabetes mellitus for 20 years and used oral antidiabetics (glikazid 30 mg 2x1/day and metformin 1000 mg 2x1/day). Additionally, he began to use clavis panax, which was promoted through visual media, for the last month. In the third week of his clavis panax use, escitalopram was initiated at a dose of 10 mg a day due to his existing complaints in a psychiatry outpatient clinic. One week later, the patient discontinued clavis panax because of his ongoing complaints and applied to our psychiatry outpatient clinic. Written informed consent form was obtained from the patient involved in this case report.

In the psychological status examination, the patient was conscious, his orientation was good, and he could was cooperative. He gave short answers to the questions asked. The patient appeared worried, timid, and restless. His attention and concentration levels decreased, and his immediate-near- and long-term memories were normal. In terms of affection, he was worried and anxious. No perceptual disorder was detected. Also, no delirium was observed in his thoughts. The patient's reasoning, abstract thinking, and administrative functions were normal. Among physiological symptoms, sleep disorder, muscle strain, tingling, palpitation, chest tightness, abdominal fullness, and dizziness were found.

The results of the biochemical blood tests, including complete blood count; kidney, liver, and thyroid functions; fasting blood glucose; electrolytes; and B12 and folate concentrations, were normal. No pathology was revealed

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by the electrocardiogram and cranial magnetic resonance imaging. The total score for the Standardized Mini Mental Test was 27/30. Furthermore, the patient's neurological and internal medical examination results were normal.

At the time of admission, the Hamilton Anxiety Scale (HAM-A) score was 44 (the highest 56) (severe, dominant over the life of patient). His follow-up procedures and treatment were initiated with escitalopram 10 mg/day and alprazolam 1.5 mg/day in an inpatient unit. On the second day of his hospitalization, the HAM-A score was 20 (mild-moderate level), and the dosage of alprazolam therapy was decreased to 1 mg per day. On the fifth day of the treatment, the HAM-A score was found to be 9, and the dosage of alprazolam was decreased to 0.5 mg a day. On the eighth day of treatment, the patient's HAM-A score was 6, and he was discharged with therapy of escitalopram 10 mg/day and alprazolam 0.5 mg/day. The alprazolam therapy was ended on the 10th day and the dosage of escitalopram was changed to 5 mg per day. In the examination performed after the first month, the HAM-A scale score was found to be 4, and escitalopram therapy was discontinued. In the examination after the second month, the HAM-A scale score was 2.

DISCUSSION

In this case report, anxiety disorder, resulting from the use of clavis panax, a herbal mixture, by a male patient to ameliorate his diabetes mellitus, is presented. Anxiety symptoms appeared for the first time in the 68-year-old patient in this case. In his medical history, it was found that he had used clavis panax for the last month, in addition to his existing diabetes mellitus treatment. With the cessation of clavis panax, the HAM-A score decreased from a level of "severe, dominant over the life of patient" to a level of "mild-moderate" within 2 days. Since the symptoms of the patient were severe, alprazolam, an anxiolytic agent, was added to the treatment, and it was decreased gradually and ended on the tenth day of treatment. The patient, who was admitted to the psychiatry outpatient clinic with these symptoms in the third week of clavis panax use, was started on escitalopram therapy with a dose of 10 mg per day. At the time of admission, escitalopram therapy was continued due to possible drug withdrawal symptoms and its possible effects on the current clinical picture, and then, it was discontinued after the first month.

All side effects associated with clavis panax are limited to cases reported in our country, and it has been suggested that it causes severe cardiological disorders. On the other hand, no studies about the beneficial effects or side effects of this combination on psychiatric disorders have been found in the literature. It was reported that panax ginseng displays anxiolytic effects in rats and also could have mild effects on attention deficit-hyperactivity disorder and that panax notoginseng has antidepressant-like effects in rats (6, 7). On the other hand, two ginseng-induced manic episode cases were reported, and it was stated that it led to irritability in schizophrenia (8-10). Ayurvedic preparations have been used as alternative medicine in the Far East for years and contain tribulus terrestris. In an experimental study conducted with albino rats, it was found that this formulation had anxiolytic effects. Furthermore, it was found that tribulus terrestris increased the level of dopamine via MAO inhibition and led to improved mood (11). It was considered that avena sativa could lead to positive effects on cognitive performance by changing EEG spectral frequencies in healthy individuals (12).

No literature was found on the interaction of clavis panax and its contents with the antidiabetic drugs glikazid and metformin used by patients (13).

According to the recordings of the World Health Organization, the majority of the world's population (70%-80%) benefits from "traditional medicine" for treatment or protection. The number of medicinal plant species used for this aim is estimated to be 70,000. Twenty-one thousand plant species were approved by the World Health Organization to be appropriate for making drugs (14). Although treatment with medicinal plants is more common among societies of Far East countries, it is seen that the use of medicinal plants has recently increased in Western societies and in our country (15). In our country, some slogans, such as "100% herbal," "completely natural," "no side effects," and "herbal remedy for your problems," are used in the marketing of herbal products, which can pose a risk for public health (2, 14), because there are many points to consider while preparing therapeutic or adjuvant therapy products from plants, in spite of their medical values. Standardization for herbal products and product information on dosage, indication, possible drug interactions, and side effects is insufficient or a mystery (16). In order to avoid the harms of herbal products that are offered under the name of dietary supplements but mostly sold by remarking their indications, all products that include medicinal plants and that are prepared in pharmaceutical forms (tablet, capsule, syrup) for oral intake should be evaluated as herbal medications (14). The necessary permission for selling these herbal mixtures under the name of dietary supplements in the market was obtained from the Ministry of Food, Agriculture, and Livestock, and no indication was stated on their packaging (17).

No data are available on the mechanism of action for clavis panax. There are some experimental studies that have been conducted separately with substances in its content, but no study showing their effects in combination has been found.

CONCLUSION

In the differential diagnosis of anxiety disorders, the use of herbal mixtures should be taken into consideration, in addition to alcohol, drugs, and medication. It should be remembered that herbal mixtures can have side effects, as well as possible benefits. Product information should be updated, including current side effects. Further experimental studies are needed on the mechanisms by which clavis panax acts and causes anxiety disorder.

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Informed Consent: Written informed consent was obtained from patients who participated in this case.

Authors' contributions: Conceived and designed the experiments or case: AA, CÇK. Performed the experiments or case: AA, ARY, CÇK, İMA. Analyzed the data: ARY, CÇK. Wrote the paper: AA. All authors have read and approved the final manuscript.

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REFERENCES

1. Celik S, Konkan R, Erkmen H, Tabo A, Erkıran M. Herbal Medicine and Their Use in Psychiatry. Düşünen Adam: The Journal of Psychiatry and Neurological Sciences 2007; 20(4): 186-95.
2. http://www.panaxsatis.gen.tr/ erişim tarihi 19.01.2012
3. Turfan M, Tasal A, Ergun F, Ergelen M. A sudden rise in INR due to combination of Tribulus terrestris, Avena sativa, and Panax ginseng (Clavis Panax). Turk Kardiyol Dern Ars. Arch Turk Soc Cardiol 2012; 40(3): 259-61. [CrossRef]
4. Atar Aİ, Er O, Güven A, Eryonucu B. Acute Coronary Syndrome Developed After Use of Clavis Panax. Arch Turk Soc Cardiol 2012; 40(3): 269-75. [CrossRef]
5. Bhattacharya SK, Mitra SK. Anxiolytic activity of Panax ginseng roots: an experimental study. J Ethnopharmacol 1991; 34(1): 87-92. [CrossRef]
6. Xiang H, Liu Y, Zhang B, Huang J, Li Y, Yang B, et al. The antidepressant effects and mechanism of action of total saponins from the caudexes and leaves of Panax notoginseng in animal models of depression. Phytomedicine 2011; 15(8-9): 731-8. [CrossRef]
7. Niederhofer H. Panax ginseng May Improve Some Symptoms of Attention-Deficit Hyperactivity Disorder. J Diet Suppl 2009; 6(1): 22-7. [CrossRef]
8. Engelberg D, McCutcheon A, Wiseman S. A case of ginseng induced mania. J Clin Psychopharmacol 2001; 21(5): 535-7. [CrossRef]
9. Vázquez I, Agüera-Ortiz LF. Herbal products and serious side effects: a case of ginseng-induced manic episode. Acta Psychiatr Scand 2002; 105(1): 76-8.
10. Wilkie A, Cordess C. Ginseng--a root just like a carrot? J R Soc Med 1994; 87(10): 594-5.
11. Deole YS, Chavan SS, Ashok BK, Ravishankar B, Thakar AB, Chandola HM. Evaluation of anti-depressant and anxiolytic activity of Rasayana Ghana Tablet (A compound Ayurvedic formulation) in albino mice. Ayu 2011; 32(3): 375-9. [CrossRef]
12. Dimpfel W, Storni C, Verbruggen M. Ingested oat herb extract (Avena sativa) changes EEG spectral frequencies in healthy subjects. J Altern Complement Med 2011; 17(5): 427-34. [CrossRef]
13. Izzo AA, Ernst E. Interactions between herbal medicines and prescribed drugs: an updated systematic review. Drugs 2009; 69(13): 1777-98. [CrossRef]
14. Ersöz T. General Attitudes and Problems Related to Herbal Medication and Dietary Supplements. Turkish Pharmacists Association Publication / The Journal of Continuing Vocational Training 2012; 27-28: 10-20.
15. Kartal M, Erdem SA. World Market and Turkey for Herbal Products. Turkish Pharmacists Association Publication/ The Journal of Continuing Vocational Training 2012; 27-28: 40-3.
16. Ersöz T. Scientific Approach to Herbal Medicine: The Rights and Wrongs.. J Pediatr Inf 2011; 5(suppl 1): 217-22.
17. Başaran AA. Legal Status of Herbal Drugs and Products in Our Country. Turkish Pharmacists Association Publication/ The Journal of Continuing Vocational Training 2012; 27-28: 22-6.