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Electroacupuncture in patients with side effects of multiple drugs therapy

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Abstract

Electroacupuncture can be used in the treatment of pain, allergy, inflammation, metabolic disorders, and post-stroke. The goal of this case study was to describe the advantages of Electroacupuncture as a treatment for medication side effects. A 49-year woman was presented with a complaint of side effects due to multiple drugs therapy. She had a history of being allergic to practically all medicines, including antibiotics, analgesics, non-steroidal anti-inflammatory drugs (NSAIDs), steroids, and vitamins. The patient underwent medical home care with the therapy of antibiotics, analgesics, and multivitamins for pharyngitis. She began to complain about the signs and symptoms of allergic responses (dizziness, nausea, swollen and thickened face). The patient was suspected of having adverse drug reactions (ADR) that were most likely the side effects of erythromycin and diclofenac sodium. She then received electroacupuncture to address the allergic reaction. The allergy complaints gradually disappeared. Electroacupuncture was chosen to treat adverse drug reactions in this patient because she had a history of allergy to anti-allergy drugs.

Keywords

Electroacupuncture; Acupuncture points; Adverse drug reaction (ADR).

Introduction

Electroacupuncture is a form of traditional manual acupuncture modification. The advantage of electroacupuncture, which has the effect of combined therapy of transcutaneous electrical nerve stimulation (TENS) and manual acupuncture. Most studies use electroacupuncture because frequency, voltage, shape, and wavelength can be standardized [1,2]. Electroacupuncture can be used as a therapy for pain, allergy, inflammation, metabolic disorders, and postoperative pain [3,4]. Understanding acupuncture is very important for health workers considering that acupuncture can be utilized as one of the modalities to deal

with events due to drug side effects (ESO) or adverse drug reaction (ADR). This case report aims to expose the benefits of acupuncture as a disorder therapy due to the side effects of multi-drug therapy.

Case Report

A 49-year-old woman was transferred to the Intensive Care Unit Dustira Hospital Cimahi with complaints of side effects due to multiple drugs therapy. The patient underwent medical home care with the therapy of antibiotics, analgetic, and multivitamin for pharyngitis. Physical and laboratory examination of blood within normal limits. Patients have a history of allergies to almost all medications. Antibiotics, analgesics, nonsteroidal anti-inflammatory medicines (NSAIDs), steroids, and vitamins are among the medications used. When allergies occur, patients experience symptoms of redness of the skin, nausea, dizzy head, and stuffy nose. After having oral medication, the patient began to complain of an allergic reaction that appeared with complaints of dizziness, nausea, swollen and thick face, and reddish skin throughout the body. The patient was suspected of having adverse drug reactions (ADR) that were most likely the side effects of erythromycin and diclofenac sodium. She then received electroacupuncture to address the allergic reaction. Acupuncture needles were placed at the point of Hegu (LI-4) and Neikuan (P-6) electrified with 10 mA electricity with a frequency of 40 Hz for 30 minutes. The press needle was placed on the left Hegu point after the electroacupuncture had begun. The allergy complaints gradually disappeared. Acupuncture was chosen to treat adverse drug reactions in this patient because she had a history of allergy to anti-allergy drugs.

Discussion

Electroacupuncture techniques were chosen to treat allergy and pain complaints because they have anti-inflammatory effects [5,6]. Adverse drug reaction (ADR) is an unwanted drug effect that arises on the administration of drugs with doses used for prophylaxis, diagnosis, and therapy. Adverse drug reaction arises as part of the chemical bioactive. Some drug reactions (erythromycin, diclofenac sodium) can arise in everyone, while some other drugs can only arise in vulnerable people. A drug allergy is a specific and recurrent immunological reaction when re-exposed to the triggering drug [7,8].

Adverse drug reaction (ADR) is estimated to occur in almost 15% of drug administration. The risk of ADR can double in hospitals. Drug reactions can cause death by 0.1% in inpatients and 0.01% in surgical cases. Only 5% to 10% of ADRs are allergic to drugs. Adverse drug reaction requires anti-inflammatory therapy, reduced dose, or discontinuation of administration, and also predicts the dangers of subsequent administration [9,10].

Electroacupuncture measures in these patients use points of Hegu (LI-4) and Neikuan (P-6) that are electrified at a frequency of 40 Hz for 30 minutes to reduce patient complaints. After the action of electroacupuncture, a press needle is affixed to the left Hegu for continuing acupuncture effects [11]. Complaints of dizziness, nausea, swollen face and tingling are no longer felt.

Low-frequency acupuncture (2–15 Hz) can release enkephalin, β-endorphins, and endomorphin that work on μ and δ receptors. High-frequency acupuncture (100 Hz) causes the release of dynorphin to κ receptors on the spinal nerve. Acupuncture involves opiates, cholecystokinin octapeptide (CCK-8), 5-hydroxytryptamine (5-HT), N-methyl D-aspartate-acid (NMDA), and other mediators (angiotensin, so-

matostatin, vasopressin, arginine, and also neurotensin) to cause anti-inflammatory and analgesic effects [12,13]. Acupuncture has a double advantage in cases of ADR because acupuncture has anti-inflammatory and analgesic effects. Electroacupuncture can be considered in overcoming disorders due to drug side effects if the patient is allergic to antiallergic drugs.

Conclusion

In conclusion, Adverse drug reaction (ADR) is an unwanted drug effect that arises on the administration of drugs with doses used for prophylaxis, diagnosis, and therapy. Acupuncture is the technique of choice to treat allergic reactions in patients with a history of allergies to almost any type of medication.

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