

## NAUSEA, VOMITING IN PREGNANCY AND ACUPUNCTURE

GEBELİKTE BULANTI, KUSMA VE AKUPUNKTUR

Aysegül Elbir Şahin<sup>1,2</sup>, Alperen Kuru<sup>3</sup>, Rümeysa Karaçuha Sürücü<sup>2</sup><sup>1</sup>Samsun Education and Research Hospital, Traditional and Complementary Medicine Center<sup>2</sup>Samsun Education and Research Hospital, Anesthesia and Reanimation Clinic<sup>3</sup>Samsun Education and Research Hospital, Family Medicine Clinic, Samsun, TÜRKİYE**Corresponding author:**

Dr. Aysegul ELBIR SAHIN, MD

**Address:**

Samsun Eğitim ve Araştırma

Hastanesi, Anestezi ve

Reanimasyon Kliniği,

Samsun/TÜRKİYE

**email:** aysegulelbir@yahoo.com**Received:** 01.04.2022**Accepted:** 07.06.2022**Cite as:** Sahin.AE, Kuru. A,

Surucu. RK, Vomiting and

Acupuncture In Pregnancy

ijcmbs 2022;2(2):150-152

doi.org/10.5281/zenodo.6800893

**Abstract**

Nausea and vomiting in pregnancy (morning sickness) is one of the most common symptoms. It is an important problem in terms of maternal and infant health. There is no generally accepted effective medical treatment. Acupuncture may be an advantageous option when evaluated with its efficacy and side-effect profile. In this article, acupuncture application in a patient, who was suffering from morning sickness that was not relieved with medical treatment, will be described.

**Keywords:** Acupuncture, Pregnancy, Nausea, Vomiting**ÖZ**

Gebelikte bulantı ve kusma (GBK) en sık görülen rahatsızlıklardan biridir. Anne ve bebek sağlığı açısından önemli bir problemdir. Genel kabul gören etkili bir medikal tedavi bulunmamaktadır. Etkinlik ve yan etki profili ile değerlendirildiğinde akupunktur avantajlı bir seçenek olabilir. Bu yazıda GBK nedeniyle medikal tedaviden fayda görmeyen bir hastadaki akupunktur uygulaması sunulmaktadır.

**Anahtar Kelimeler:** Akupunktur, Gebelik, Bulantı, Kusma**Highlights**

- Acupuncture in morning sickness is an effective alternative.
- Acupuncture is a safe option with low side-effect profile in morning sickness.

**Introduction**

Nausea and vomiting in pregnancy (morning sickness) is one of the most common symptoms during pregnancy (1). More than half of the pregnant women typically experience episodes of morning sickness that begin at 4<sup>th</sup> week and decrease after 16<sup>th</sup> week of pregnancy(2). Rarely, these complaints is observed to persist throughout the entire pregnancy and may turn into a severe form called “hyperemesis gravidarum” (1). In addition to increasing the cost of health care, causing loss of workforce and decreasing the quality of life of pregnant women, morning sickness is important factor causing deep anxiety in the family in terms of the course of pregnancy and fetal health (3).

Early treatment aims to prevent serious complications, including hospitalization (3). The etiopathogenesis of morning sickness is multifactorial, including genetic, endocrine and infectious factors. There is no effective treatment that can fully address the etiopathogenesis. Dietary changes, symptomatic drugs prescribed with taking side effect profile for mother and fetus into consideration; and in severe cases, intravenous fluid support and intravenous nutrition are recommended in the treatment of morning sickness (1).

For patients who do not benefit from traditional medical methods, integrative methods that has no side effects can be considered. According to Traditional Chinese Medicine, the ear is a microsystem that represents our body. Auricular acupuncture, also known as auriculotherapy, can be done by holding seeds, balls and needles in place by a permanent band to specific points in the ear or by applying laser and electric current. It is a non-invasive, inexpensive, safe and easy form of treatment. Talking about body acupuncture, is a treatment applied by placing thin needles at defined points on the energy channels of human’s body. It has no known side effects or teratogenic complications (4,5). In this article, acupuncture application in a patient who applied to our Traditional and Complementary Medicine (TCAM) Center with the complaint of morning sickness is presented.

### Case presentation

A 31-year-old, 14-week pregnant patient who had to use 2 tablets of doxylamine+pyridoxine and ondansetron daily in an attempt to relieve the complaints of severe nausea, sometimes vomiting, and aversion to odors, specifically of foods. These symptoms has started at the 6<sup>th</sup> week of pregnancy and reoccured every morning . Since the patient's complaints were not relieved, she left the medical treatment and applied to our TCAM Center for acupuncture treatment. First of all, the patient's detailed medical history was taken and physical examination was performed. According to the patient's history, pregnancy follow-up visits were carried out regularly in the gynecology and obstetrics clinic of a tertiary health center. Complete blood count, liver and kidney function tests, electrolyte values and electrocardiography were evaluated within normal limits. The patient, who was found to have no medical issues to be treated, was informed about acupuncture and her informed consent was obtained. A single session of body acupuncture was performed on bilateral P6 (Neiguan), bilateral ST36 (Zusanli), REN12 (Zhong Wan) points for 20 minutes. 0.20x13mm disposable sterile steel needle was used. After body acupuncture, ear acupuncture was performed by placing sterile permanent seeds to Shen-men (bilateral), Antidepressant (bilateral), Stomach (left) points (Figure 1). Two days after the session, nausea decreased significantly, vomiting did not occur, but the symptom of aversion to odors persisted. When the patient felt nauseated, she managed to relieve her nausea by applying pressure to the bands placed on her ears. No side effects were reported. These advantageous effects continued until the end of pregnancy and the patient did not need any other treatment during pregnancy. In our case, a strong response to treatment was obtained by applying body and ear acupuncture simultaneously in a single session.

**Figure 1:** Body and ear points used for acupuncture treatment in our case (A: Shen-men; B: Stomach; C: Antidepressant; 1: Ren12; 2: P6; 3: ST36)



### Discussion

In the current literature, there are conflicting studies on the effectiveness of acupuncture on morning sickness. While most studies reported complete efficacy, some reported partial or no effect. Similarly, the effectiveness of current medical treatments is controversial. The reasons for the conflicting results on efficacy are the insufficient level of evidence and number of studies (2,6-9). This suggests that there is a need for high-evidence studies in the treatment of morning sickness.

Pharmaceutical treatment of morning sickness include anticholinergics, antihistamines, dopamine antagonists, vitamins (B6 and B12), H3 antagonists, or combinations of these substances. Concern about probable teratogenicity of drugs results in hesitancy in prescribing and using drugs during the first trimester of pregnancy. These concerns about drugs in early pregnancy and the increase in the successful use of integrative therapies have made non-drug methods more popular in the treatment of morning sickness (7,9). In this respect, acupuncture seems to be an advantageous option without side effects.

The antiemetic effects of acupuncture are thought to be due to the inhibition of the chemoreceptor trigger zone and vomiting center as a result of increased pituitary secretion of beta-endorphins and adrenocorticotrophic

hormone. Acupuncture also regulates gastric peristalsis and reduces gastric acid secretion by affecting the upper gastrointestinal system (5). The range of effects of acupuncture is wide and a strong response could be seen as in our case. In recent studies, it has been seen that body or auricular acupuncture is used alone in the treatment of morning sickness patients. In our case, the efficacy may have been increased and the need for additional sessions-treatment may have been avoided by using two methods consecutively. There are examples in the literature that the combined use of body and ear acupuncture can be more effective (10).

Studies have shown that P6 point stimulation is superior to several antiemetic drugs in preventing nausea and vomiting (11). In a study about the effects of body acupuncture on the P6 point, ondansetron and placebo on postoperative nausea and vomiting, it was shown that acupuncture and ondansetron were significantly more effective than placebo, equivalent to each other (12). In a systematic review of morning sickness treatments, ondansetron was found to be more effective in reducing nausea than doxylamine+pyridoxine (13). Our case decided to try acupuncture treatment because her complaints did not change despite the use of 2 tablets of Doxylamine+Pyridoxine and Ondansetron per day. After the session, the patient's complaint of vomiting completely disappeared, and the nausea decreased significantly. These effects which obtained in a single session continued until the end of pregnancy. These data suggest that acupuncture may be at least as effective as ondansetron.

Most of the acupuncture studies on nausea and vomiting focussed on the P6 point (9). In our case, it was aimed to balance the energy circulating in the stomach canal by adding ST36 and REN12 points to the P6 point, which are frequently used in stomach disorders. In order to prevent recurrences, permanent seeds were placed on the relevant acupuncture points in the ear and the possibility of needing retreatment with the acupressure method has been reduced. After the session, our patient managed to get over the nausea by applying pressure to the seeds in her ear when she felt nauseated again.

### Conclusion

Morning sickness is an important problem in terms of maternal and infant health. Acupuncture may be an advantageous option for medical treatments in terms of efficiency and side-effect profile. Informing pregnant women about this issue in the early period may contribute to the quality of life of the patients, reduce health care costs and reduce the rates of hyperemesis gravidarum.

### Acknowledgements: None

*Ethical Approval: N/A*

*Author Contributions: Author Contributions: Concept: Şahin AE, Kuru A; Literature Review: Sahin AE, Sürücü RK; Design: Kuru A, Sürücü RK; Data acquisition: Sahin AE, Kuru A; Analysis and interpretation: Şahin AE; Writing manuscript: Şahin AE, Sürücü RK; Critical revision of manuscript: Şahin AE, Kuru A*

*Conflict of Interest: The authors have no conflicts of interest to declare.*

*Financial Disclosure: Authors declared no financial support.*

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