

# Prevalence of Contraceptive Effects on Iranian Women Pilgrims to Holy Places in 2019

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## Abstract

**Background and Objective:** The use of birth control pills, either arbitrarily and as prescribed by a doctor, to delay menstruation, has become very common in pilgrims on pilgrimages to the holy shrines in the past few years. On the other hand, few studies have been conducted to identify the prevalence and type of side effects of these pills. This study was conducted to evaluate the prevalent side effects of these drugs on Iranian women pilgrims to holy places in 2019.

**Methods:** This is a cross-sectional study. In this study, 123 women *Tamattu'* Hajj pilgrims and pilgrims of the holy shrines in 2019, who met the desired conditions, were selected based on purpose. The data collection instrument was a two-part researcher-made questionnaire. The first part of the questionnaire was completed in the last days of the Hajj pilgrimage in the holy land of Arafat when the pilgrims referred to their tents and also in the last days of the pilgrimage to the holy shrines in interviews with the qualified people. The second part of the questionnaire collected the necessary information one month after returning from the Hajj and pilgrimage of the holy shrines. In this study, all the ethical considerations were observed and the authors declared no conflict of interest

**Results:** The results of the test for the frequency of drug side effects showed that spotting, bleeding, nausea and dizziness, anxiety and depression and irritability, chest pain and shortness of breath and lower extremity problems such as swelling, unilateral leg edema and leg pain were the most important complications. They were taking drugs and McNemar nonparametric test analysis showed that there was a significant difference between the occurrence of some complications during and after the trip ( $P<0.05$ ).

**Conclusion:** Due to the side effects associated with taking the pills during and after the trip, pilgrims are recommended to use the least number of pills to create fewer side effects, and it is even better to start taking the pill just a few days before the expected time of menstruation.

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## Summary

### Background and Objective

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(i.e., Research on Religion & Health)

Birth control pills are among the common methods used by women during reproductive age to delay pregnancy, increasing the age distance between children, and family planning (1).

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Another application of these pills is to delay menstruation (2). In Iran, besides the common use of these pills, they are consumed in other contexts, that is, in paying pilgrimage to the holy shrines, which has considerably increased during the recent years in women pilgrims to the holy shrines to delay menstruation during the trip (pilgrimage). There are a large number of studies showing that using these pills causes serious side effects in the consumers. Taking birth control pills particularly in the long term leads to many side effects (2, 3). There is also a concern in women pilgrims taking these pills concerning their side effects (4).

It is important to attend to this issue considering its importance and the effects it has on women's productivity particularly those in the age of pregnancy (aged 15-49). Accordingly, we tried to examine the prevalence and the side effects of birth control pills in Iranian women paying pilgrimage to the holy places in 2019 in the framework of a cross-sectional study.

## Methods

**Compliance with ethical guidelines:** Adherence to ethical guidelines: To observe the ethical considerations, complete explanations were provided to the sample population before sampling and written informed consent was obtained from the participants and they were assured that their information would be kept confidential.

This is a cross-sectional study. The sample population included all the female pilgrims to *Tamattu' Hajj* and the holy shrines in 2019, out of whom 123 women were selected by purposive sampling method. The data collection instruments included a two-part researcher-made questionnaire. The first part of the questionnaire was completed in the last days of the *Tamattu' Hajj* pilgrimage in the holy land of Arafat when the pilgrims referred to their tents and also in the last days of the pilgrimage to the holy shrines in interviews with the qualified people. In addition, one month after the pilgrims returned from the Hajj pilgrimage and pilgrimage to the holy shrines, the required data was collected via phone contact with the pilgrims and the second part of the questionnaire was completed.

## Results

The results of the test for the frequency of drug side effects showed that spotting, bleeding, nausea and dizziness, anxiety and depression and irritability, chest pain and shortness of breath and lower extremity problems such as swelling, unilateral leg edema and leg pain were the most

important complications. The results of McNemar nonparametric test analysis showed that there was a significant difference in the occurrence of dizziness, anxiety and depression and irritability during and after the trip ( $P=.000 < 0.05$ ).

## Conclusion

The results of analysis showed that taking birth control pills to prevent menstruation to be able to perform their acts of worship in the holy places can produce certain side effects during consumption and later on. In the present study, spotting and bleeding were among the reported side effects, as also reported in the study by Payne et al. and El-Hemaidi (5, 6). The results further showed that 13.7% of the participants experienced spotting despite taking pills. Shukla et al. also consider unnatural bleeding of the uterus as one of the most common side effects associated with consuming birth control pills (7).

Nausea and dizziness are also among the side effects associated with taking these drugs in the present study. These side effects were also reported in the study by Kiley et al. and Littlejohn et al. (8, 9). Based on the findings of the present study, 11.4% of the participants experienced dizziness and 19.5% experienced nausea. Smulders et al. also mentioned dizziness as one of the side effects of the estrogen in these pills (10). Anxiety and depression and irritability have been also reported as the side effects, as mentioned in the study by Vorley et al. (11).

In the present study, 18.9% of the participants reported other side effects such as burning soles and palm burning, and mood disorders. Furthermore, chest pain and shortness of breath were among the problems the pilgrims referred to. These side effects were also observed in the study by Cooper and Mahdy (12).

Swelling, unilateral leg edema and leg pain have been further mentioned as among the birth control pills. These side effects have been confirmed in the studies of Davis et al. (13) and Farquhar and Brown (14).

Minozzi et al. also referred to the side effects of birth control pills concluding that it is difficult for the consumers to tolerate these drugs irrespective of their therapeutic use (15). In contrast with the findings of the present study and the mentioned studies, McKetta et al. found no relationship between taking these pills and increased rate of depression (16). In the study by De Wit et al. also, the participants reported high prevalence of depression symptoms when using oral contraceptives (17), which is consistent with the findings of the present study.

The results of data analysis indicated that due to the side effects caused by taking contraceptives during and after pilgrimage, particularly in the women with underlying diseases who had taken other drugs, more caution needs to be practiced by physicians and midwives in prescribing contraceptives. It is even better for these women to start taking these pills a few days before the expected time of menstruation so that they can carry out their religious obligatory duties in places of pilgrimage by delaying menstruation.

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### Ethical considerations

The authors declare the Ethics Committee of the Research Deputy of the Shahid Beheshti University of Medical Sciences has confirmed this study. under the code IR.SBMU.RETECH.REC.1396.851.

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The authors did not declare any sponsor for this study.

### Conflict of interest

The authors declared no conflict of interest.

### Authors' contribution

Editing the article and corresponding author: First author; writing the article: Second author; statistical analysis: Third author; data collection: Fourth author; and data collection: Fifth author.

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# دراسة شيوخ عوارض استعمال أدوية منع الحمل عند النساء الإيرانيات الزائرات للأماكن المقدسة في عام ٢٠١٩

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## الملخص

**خلفية البحث وأهدافه:** لقد شاع خلال السنوات الأخيرة تناول أقراص منع الحمل سواء بشكل شخصي أو بإذن الطبيب، وذلك بغرض تأخير مجيء الدورة الشهرية بالنسبة للوالي يقمن بأسفار زيارات دينية للحج أو للعتبات المقدسة. وباعتبار أن التحقيقات التي أجريت لمعرفة أنواع عوارض استعمال الأقراص ومدى شيوعها كانت قليلة فقد تم القيام بهذا التحقيق لدراسة مدى شيوع عوارض هذه الأدوية في النساء الإيرانيات الزائرات للأماكن المقدسة خلال العام ٢٠١٩.

**منهجية البحث:** تعتبر هذه الدراسة من النوع المقطعي. وقد تم اختيار ١٢٣ امرأة من النساء الزائرات في قوافل حج التمتع والعتبات العالية في عام ٢٠١٩ واللوالي كنّ يجربن الشروط الازمة، وكان الاختيار مبنياً على المدف. وكانت أدوات جمع البيانات عبارة عن استبيان مدروس مؤلف من قسمين. القسم الأول عبارة عن استبيان تم تعبئته في الأيام الأخيرة لسفر حج التمتع في أرض عرفات المقدسة، وذلك بعد المراجعة لمحيطيات النوار، وكذلك في الأيام الأخيرة لسفر زوار العتبات العالية خلال مقابلات أجريت مع الأفراد حائز الشروط. كما أنه تمأخذ المعلومات أيضاً بعد شهر من الرجوع من سفر الحج والعتبات العالية من خلال الاتصال التلفوني مع الأفراد وتم تكميل القسم الثاني للاستبيان. وقد تمت مراعاة جميع الضوابط الأخلاقية في هذه الدراسة، ولم يلاحظ مؤلفو المقالة أي تضارب للمصالح.

**الكتشوفات:** تشير نتائج اختبار شيوع عوارض استعمال الدواء إلى أن أهم عوارض استعمال الدواء كانت عبارة عن وجود: لطخات، وزيف، وتقيع ودوار، واضطراب واكتئاب وعصبية، وألم في القفص الصدري وضيق تنفس، ومشاكل في النصف السفلي من الجسم مثل التورم، وتورم أحد طرفي القدم وألم في القدم. ويشير تحاليل الاختبار الالامعجمي لـ (ماك تمار) إلى وجود تفاوت ذي معنى ( $P < 0.05$ ) بين بروز بعض العوارض خلال السفر وبعده.

**الاستنتاج:** بسبب العوارض الناشئة من استعمال الأقراص خلال مدة السفر وبعد إفائه يوصى بالاستفادة بأقل حد ممكن من الأقراص، كي تكون العوارض بعدها الأدنى للوالي يستعملتها. بل إنه يستحسن أن تكون بداية استعمال الأقراص قبل عدة أيام فقط من الموعد المتظر للدورة.

## معلومات المادة

الوصول: ٢٠ ربیع الثانی ١٤٤١

وصول النص النهائي: ٢٦ جمادی الاولی ١٤٤١

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## الكلمات الرئيسية:

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الأماكن المقدسة

النساء الإيرانيات

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# بررسی شیوع عوارض مصرف داروهای ضدبارداری در زنان ایرانی زائر اماکن مقدس در سال ۱۳۹۸

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## چکیده

**سابقه و هدف:** مصرف قرص‌های ضد بارداری هم به صورت خودسرانه هم تجویز شده توسط پزشک جهت به تأخیر ادختن قاعده‌گی در زائران سفرهای زیارتی حج و عتبات عالیات در چند سال اخیر بسیار رایج شده است. از آنجایی که برای شناخت شیوع و نوع عوارض مصرف قرص‌ها، مطالعات کمی صورت گرفته، این مطالعه برای بررسی شیوع عوارض این داروها در زنان ایرانی زائر اماکن مقدس در سال ۱۳۹۸ انجام شده است.

**روش کار:** این مطالعه از نوع مقطعی است. در این پژوهش ۱۲۳ نفر از بانوان زائر کاروان‌های حج تمتع و عتبات عالیات در سال ۱۳۹۸ که دارای شرایط موردنظر بودند به صورت مبتنی بر هدف انتخاب شدند. ابزار گردآوری داده‌ها پرسشنامه محقق‌ساخته دو قسمتی بود. قسمت اول پرسشنامه در آخرین روزهای سفر حج تمتع در سرزمین مقدس عرفات پس از مراجعت به چادرهای زائران و همچنین در آخرین روز سفر زائران عتبات عالیات در مصاحبه با افراد واحد شرایط تکمیل شد. همچنین، یک ماه پس از بازگشت از سفر حج و عتبات عالیات از طریق تماس تلفنی با افراد، اطلاعات لازم دریافت و قسمت دوم پرسشنامه تکمیل شد. در این پژوهش همه موارد اخلاقی رعایت شده است و مؤلفان مقاله تضاد منافعی گزارش نکرده‌اند.

**یافته‌ها:** نتایج آزمون فراوانی عوارض مصرف دارو نشان داد که لکه‌بینی، خون‌ریزی، تهوع و سرگیجه، اضطراب و افسردگی و تحریک‌پذیری، درد قفسه سینه و تنگی نفس و مشکلات ناحیه اندام تحتانی مثل تورم، ورم یک طرفه پا و پادرد از مهم‌ترین عوارض مصرف دارو بود. تحلیل آزمون ناپارامتری مک نمار نشان داد که بین بروز برخی عوارض در طول سفر و بعد از آن تفاوت معنی‌داری وجود داشت ( $P < 0.05$ ).

**نتیجه‌گیری:** به دلیل عوارض ایجاد شده ناشی از مصرف قرص در طول سفر و بعد از آن، توصیه می‌شود کمترین تعداد قرص استفاده شود تا عوارض کمتری برای مصرف کنندگان ایجاد شود و حتی بهتر است شروع مصرف قرص فقط چند روز قبل از زمان مورد انتظار قاعده‌گی باشد.

## اطلاعات مقاله

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## واژگان کلیدی:

اماکن مقدس

داروهای ضد بارداری

زنان ایرانی

استناد مقاله به این صورت است:

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