

## Ovarian consequences of transient discontinuation of combined oral contraceptive pills (the missing pills).

-Abdaladeem Y. J., department of obst. & gyn. / college of medicine Qadissiyah University, Iraq.

### الخلاصة

أجريت في مستشفى العلوية التعليمي للولادة و مستشفى الحبيبية التعليمي للولادة والاطفال في بغداد/العراق لتحديد تأثيرات الانقطاع المؤقت عن تناول الحبوب المانعة للحمل الثانية الهورمون (ما تسمى بالحبوب المنسية) على نسبة الإباضة، الحمل أو أي تأثيرات مرضية أخرى (دراسة مستقبلية مسيطرة) تم اختيار مائة سيدة كلهن يستعملن الحبوب المانعة للحمل ثنائية الهورمون , خمسون سيدة تم اعتبارهم مجموعة السيطرة وهم الذين يستعملون الحبوب بانتظام و خمسون سيدة تم اعتبارهم مجموعة الدراسة وهم الذين نسوا استعمال بعض الحبوب (حبة , حبتان أو ثلاثة) أما الذين نسوا استعمال أكثر من ثلاث حبات فلم يشملوا في الدراسة , وقد تمت متابعة هؤلاء السيدات لمدة ستة أسابيع بعد الدورة الشهرية اللاحقة لاستعمال الحبوب . جميع السيدات (مجموعة السيطرة والدراسة ) يستعملن نفس النوع من الحبوب المانعة للحمل ثنائية الهورمون وهي مايكروجينون شركة شيرينغ ( ليفونورجستريل 0,15مغم + اثنيل استراديول 0,03مغم ) الحمل نادر الحدوث خلال فترة الاستعمال المنتظم للحبوب المانعة للحمل حتى وان نسيت حبة , حبتان أو ثلاثة خلال الكورس الواحد ( وهو 21 يوما ) وكذلك الإباضة نادرة الحدوث , مما يعني ان تثبيط عمل المبيض يبقى فعالا بالحبوب المانعة ثنائية الهورمون حتى عند نسيان الحبوب لعدة أيام (لا تتعدى ثلاثة أيام = ثلاثة حبوب ) . ان نسيان بضعة حبوب مانعة للحمل ثنائية الهورمون لا يؤدي الى الإباضة أو الحمل بشرط أن السيدة تبدأ الكورس التالي للحبوب المانعة للحمل سبعة أيام بعد إيقاف الكورس السابق .

### Abstract

The aim of this study is to determine the effects of transient interruption of combined oral contraceptive pills (the missing pills) on pregnancy rates, Ovulation, & any other pathological complications.

-Design: a prospective & case controlled study.

-Setting: this study was done in Elwiyah & Habibiya teaching hospitals, Baghdad / Iraq.

### Tools & methods

One hundred women were chosen, all are using combined oral contraceptive pills, fifty women considered as the control group whom on regular use of pills, the study group are those women on pills but with missing pills (1, 2 or 3), those with more than 3 missing pills were not included in the study, these women were followed up for 6 weeks following the next period.

All women (study & control groups) were supplied with the same type of combined oral contraceptive pills which was Microgynon Schering (levo Norgestrel 0.15 mg + Ethinyl estradiol 0.03 mg).

## **Introduction**

For many decades oral contraceptive pills have been used as a very successful method for prevention of conception , with a failure rate of less than 1 %(1,8), many types of cp. were available , some contains progesterone only , some contains combination estrogen & progesterone in the late fifties & early sixties the contraceptive pills contained higher doses of steroid hormones ( being estrogens or progesterones ) , leading to a lot of unwanted side effects which resulted in worse patient compliance(4) .With advances in drug research & production the drug companies have reached the optimal hormone concentration ( giving the best wanted results with the least hormone concentration ) which reduced the side effects of these drugs & resulted in better patient compliance(5,6). In the last few years there has been a revolution in the production of combined contraceptive pills(3) , a new form of these drugs was produced as a nasal spray , it is a well known fact that giving drugs through the mucous membranes ( such as nasal or sublingual ) will lead to a rapid absorption with an additional benefit that a lower dose is needed ( because it will not pass through the stomach where some is destroyed by the gastric juice ) ,but this type of combined contraceptive ( nasal spray ) is still not used world – widely because it is only produced by few drug companies beside it is still coasty ,no pathological features detected by ultrasound due to combined pills use(2,7).

## **Materials & methods**

cases were collected from Elwiyah teaching hospital & Habibiyah teaching hospital from January 2006 till June 2007 , they were collected from the family planning centers in these hospitals , 100 cases were collected & categorized into 2 groups ; 50 women on regular use of combined oral contraceptive pills & considered as the control group , another 50 women chosen because they forgot to take 1,2 or 3 pills & considered as the study group , patients in both groups characterized by ;

- Age: between 20 – 40 years.
- Parity: cases included both primi parous & multi parous women.
- Other risk factors were excluded from the study like severe hypertension, uncontrolled diabetes and immunocompromised patients. Women in our study should not be on any drug which might interfere with the absorption, bio –availability or excretion of combined oral contraceptive pills.

the method of detecting any pathological effect of the missing pills on the ovaries & the uterus is by ultrasound , the same investigation was used to detect whether ovulation or pregnancy has occurred or not because of the forgotten pills.

## **Results**

conception rarely occurs during the period of regular use of combined oral contraceptive pills even if 1 , 2 or up to 3 pills are missed during the treatment phase , so failure to take up to 3 pills during 21 days therapy is mostly neither associated with ovulation nor with pregnancy , none of our patients ovulated or conceived during the study period ,which means that ovarian blockage by combined pills remains effective even after several days of missing the pills (not more than 3 pills) .

## **Conclusion**

Missing a few combined oral contraceptive pills ( not more than three) during the treatment phase will not lead to ovulation or pregnancy provided that the female will start the next course of steroid oral contraceptive pills 7 days after stopping the ingestion of the previous course of contraceptive pills,it seems that the negative retrocontrol of estrogen-progesterone is more effective than the positive feed back of ovarian estrogen which is the triggering factor for Luteinizing hormone & folliculo-genesis,extending the 7 days interval to 8 or more days may result in escape ovulation & may be pregnancy .

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