Content available at: https://www.ipinnovative.com/open-access-journals

Panacea Journal of Medical Sciences

Journal homepage: http://www.pjms.in/

Letter to the Editor

Indian women should be encouraged to use combined contraceptive vaginal ring

Sourav Das¹*, Tiasa Sinha²

¹Dept. of Obstetrics and Gynaecology, College of Medicine and JNM Hospital, Kalyani, West Bengal, India ²Dept. of Biochemistry, KPC Medical College and Hospital, Kolkata, West Bengal, India



ARTICLE INFO	ABSTRACT
Article history: Received 20-02-2024 Accepted 05-03-2024 Available online 13-03-2024	This article is to spread awareness among Indian women regarding vaginal contraceptive ring use. Since the introduction of hormonal contraceptives, combined oral pills (COCs) have become the method of choice for many women. Although COCs have improved significantly, they have got some disadvantages. This has prompted development of non-oral hormonal contraceptive methods. One of them is combined contraceptive vaginal ring (CCVR). Most studies found out that CCVR was associated with good cycle
<i>Keywords:</i> Contraceptive Family planning Vaginal ring	control and was not associated with vaginal or cervical abnormalities. Treatment related adverse effects like headache, leucorrhoea, nausea, etc and systemic side effects are minimal. Most women found the ring easy to insert, easy to remove and were satisfied with ring usage. So it can be concluded that CCVR is an effective contraceptive with good cycle control that is well tolerated. It is associated with high user and partner acceptability and minimal local and systemic effects. Therefore gynaecologists and policy makers should give more emphasis on its routine use.
	This is an Open Access (OA) journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.
	For reprints contact: reprint@ipinnovative.com

1. History of Contraceptives

Contraception has a long history that dates back to the recent past. Combination oral contraceptives, or COCs, have been the technique of choice for many women globally since the advent of hormonal contraceptive methods in the early 1960s. Current research includes producing more effective hormone preparations, lowering dosages, and creating novel delivery systems with enhanced acceptability and efficacy that are tailored to the requirements of each user. Despite being widely utilized and having greatly improved over the last few decades, COCs as a class have certain drawbacks. Treatments used orally may lose a considerable portion of their active ingredient due to first-pass metabolism, vomiting, and medication interactions, which can alter the drug's bioavailability. They significantly alter serum hormone levels, and they do have an issue

2. Non oral non Injectable Vaginal Contraception

Vaginal delivery provides a number of benefits. Because of its anatomy, histology, and physiology, it is possible to administer progesterone and estrogen at lower dosages than with COCs, avoid gastrointestinal disturbances and hepatic first pass metabolism, and use controlled release formulation to achieve constant serum hormone levels.² Potential advantages of using vaginal rings include easy insertion and removal by the user, self-control on the part of the user, no daily intervention needed, and a quick return to regular cycling following removal.

with compliance.¹ Other non-oral hormonal contraceptive techniques, some of which include controlled release formulation, have been developed as a result of these concerns. Among the developments in this area is the combination contraceptive vaginal ring (CCVR).

^{*} Corresponding author. E-mail address: sourav_burdwan@yahoo.co.in (S. Das).



Figure 1: Combined contraceptive vaginal ring- structure and usage technique

The flexible, transparent, evatane-made combined contraceptive vaginal ring has an outer diameter of 54 mm and a cross sectional diameter of 4 mm. It contains 2.7 mg of ethinylestradiol and 11.7 mg of etonorgestrel, which release 15 mcg of ethinylestradiol and 120 mcg of etonorgestrel daily.³ Every ring is meant to be used for a single cycle, which consists of three weeks of ring use followed by a week without wearing any rings.⁴ Studies' findings demonstrate that CCVR is a highly effective form of birth control with superior cycle management, great user satisfaction, and an ideal safety profile.⁵

3. Benefits of CCVR

- 1. The combined contraceptive vaginal ring is an effective contraceptive with good cycle control that is well tolerated.
- 2. It has neutral effect on blood pressure and body weight,
- 3. Has no clinical relevant effect on blood sugar,
- 4. Has minimal effects on lipid metabolism,
- 5. Has no clinical significant effect on liver function,
- 6. Has no unfavourable effect on vagina and cervix.
- 7. It is associated with high level of user and partner acceptability
- 8. And has a low incidence of adverse effect such as nausea, headache and leucorrhoea
- 9. And has a very low incidence of spontaneous expulsion.

4. Conclusion

Due to the less severe systemic adverse effects of exogenous hormone therapy, CCVR is an useful and effective substitute for oral medications. Because the hormone levels in the serum remain consistent, its administration successfully regularizes bleeding patterns. Additionally, it is less laborious to use because it only needs to be inserted once a month as opposed to oral tablets, which must be taken every day. So, gynaecologists and policy makers should give emphasis and spread more awareness regarding its routine use.

5. Conflict of Interest

The authors declare that there are no conflict of interest in this article.

References

- 1. Timmer CJ, Mulders TM. Pharmacokinetics of etonorgestrel and ethinylestradiol released from a combined contraceptive vaginal ring. *Clin Pharmacokinet*. 2000;39(3):233–42.
- Bjarnadottir RI, Tuppurainen M, Killick SR. Comparison of cycle control with a combined contraceptive vaginal ring and oral levonorgestrel/ethinyl estradiol. *Am J Obstet Gynecol.* 2002;186(3):389–95.
- Dieben TOM, Roumen F, Apter D. Efficacy,cycle control, and user acceptability of a novel combined contraceptive vaginal ring. *Obstet Gynecol.* 2002;100(3):585–93.
- Tuppurainen M, Klimscheffskij R, Venhola M, Diaben TO. The combined contraceptive vaginal ring (Ccvr (nuvaring)) and lipid metabolism: a comparative study. *Contraception*. 2004;69(5):389–94.
- Novak A, Loge CDL, Abetz L, Van Der Meulen E. The combined contraceptive vaginal ring, Ccvr (nuvaring): an international study of user acceptability. *Contraception*. 2003;67(3):187–94.

Author biography

Sourav Das, Assistant Professor in https://orcid.org/0000-0002-5690-1671

Tiasa Sinha, Assistant Professor 💿 https://orcid.org/0009-0006-7005-1948

Cite this article: Das S, Sinha T. Indian women should be encouraged to use combined contraceptive vaginal ring. *Panacea J Med Sci* 2024;14(1):1-2.