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Emergency contraception: A quick lesson

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ABSTRACT

Unprotected sex is only the major cause of unexpected, unwanted pregnancy which is a serious problem for the female which can interfere in their personal life. To achieve their normal life, abortion is one of the general as well as common out-turn to them as a result increasing rate of abortion use to be an incident in Indian female of fertile age. Thus, this incidence is giving a prone to enter in an unsafe life to those females. To avoid this unsafe and uninterrupted personal life the knowledge about Emergency Contraception is necessary.



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Unprotected sex is only the major cause of unexpected, unwanted pregnancy which is a serious problem for the female which may also affect their family and their social life in large scale. To achieve their normal life, abortion is one of the general as well as common out-turn. There are about 15.6 million abortions (14.1 million–17.3 million) done in India in 2015 besides this the abortion rate was 47.0 abortions (42.2–52.1) per 1000 female of fertile age (Singh *et al.*, 2018). Based on that report, it was established that total 48.1 million pregnancies were reported, out of that the normal wanted

pregnancy rate was 144.7 pregnancies per 1000 female aged 15–49 years, whereas unwanted pregnancy rate was 70.1 unintended pregnancies per 1000 female of same age group. Which means almost in one-third of all pregnancies abortion was done, and nearly half of pregnancies were unintended (Singh *et al.*, 2018).

Emergency contraception (EC) is a method of contraception which can be achieved to prevent pregnancy after performing sexual intercourse. These are suggested to use within 5 days while they are showing their efficacy as sooner they are used after intercourse (WHO, 2018). While some common generalized contraceptive methods may enlighten a sign for the risk like breakage and slippage of a condom as well as of diaphragms dislocation of cervical caps, forgetfulness for pill users to take the pills (contraceptive tablets) regularly has given a chance for the use of an emergency contraceptive method. Some other reasons may also be included like when the users of EC engaged in unprotected sex either forcefully or persuaded or unprotected desired sex etc. which are concerned with the use of EC. All the fertile as well as sexually active females of reproductive age must to use EC.

Yuzpe regimen is the old and commonly known method of EC which consists of combination of ethinyl estradiol (0.1mg) and levonorgestrel (0.5mg): combination is also known as “morning-after pill” with some common side effects but due to its less effectiveness, 2 doses of 0.75mg levonorgestrel (Estrogen free) taken 12 hrs apart starting within 72 hrs of unprotected sex has widely been accepted later and it became an alternative regimen. A single dose of 10mg of mifepristone (RU-486) is also more effective than Yuzpe regimen (Ashok *et al.*, 2002) with slight disturbances in the menstrual cycle. The World Health Organization (WHO) also investigated the use of progestogen tablets, that showed greater efficacy with reduced side effects (Ashok *et al.*, 2002) and which is commonly being used by Indian female as EC manufactured by several pharmaceutical companies as well. Another best known long-term method of EC method is to use immediately after desired unprotected sex for continuous 5days, called as an Intrauterine device (IUD) (Copper bearing device is commonly known as copper-T(Cu-T)), effective with very less or sometimes negligible failure chance where copper acts as a spermicide (Agarwal *et al.*, 2018).

Levonorgestrel-releasing intrauterine system (LNG IUS) is becoming more effective with fewer side effects and lasts for up to 3years of insertion with high satisfaction rate, also having a local effect on the endometrium and also being used as for treatment of endometrial hyperplasia, benign menorrhagia, endometriosis, adenomyosis, and uterine fibrosis etc (Attia *et al.*, 2013). In spite of the fact that Cu-T as EC will provide women with continued contraception, then also a majority of them do not like this. WHO conducted a one year study among the female of 14 countries, were using Yuzpe regimen or LNG as EC method and the evident failure rate was 3.2 and 1.1% respectively, surprisingly only one pregnancy was found among the female out of 879 who accepted Cu-T as an exclusive method followed by sexual intercourse (Kaneshiro and Aeby, 2010). Even after the use of those EC methods, Cu-T has greater response to resume the onset of menstruation than the LNG.

But Cu-T was unsuccessful on the point of view of side effects (Reinprayoon and Taneepanichskul, 1998). The appearance of abdominal pain, heavy menstrual bleeding, irregular pattern of bleeding were found to be more in case of Cu-T users than LNG users, but nausea, heavy menstrual bleeding, irregular pattern of bleeding were also reported for LNG users, with or without reporting of vomiting. EC has proven as a best and only device as an emergency measure in the current social environment in preventing unwanted pregnancies, in cases of rape, incest, failure of barrier or natural

methods for contraception, unprotected or unplanned intercourse. The preference of LNG over copper-T is because of its high acceptability and negligible side effects, while Cu-T can be inserted for long interception period and provides contraception also.

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