

## A Case Report: Ectopic Pregnancy Due To Failure of Emergency Contraceptive

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**Abstract:** An ectopic pregnancy is one in which the fertilised ovum becomes implanted in a site other than the normal uterine cavity. It is usually found in early pregnancy. To prevent unwanted pregnancy, emergency contraceptive used has been popular since the last two decades. It is seen to have 99% successful rate if taken within 72 hours after unprotected coitus and of which 1% is seen to have normal pregnancy or ectopic pregnancy. Hormonal contraceptive pills containing 750 microgram levonorgestrel are the most commonly used postcoital contraceptive method because of their high efficacy and fewer side effects. Early diagnosis and detail history collection/physical examination with early management has saved many maternal lives from unwanted risks, shocks, death etc.

**Keywords:** Ectopic, emergency contraceptive, human Chorionic gonadotrophin (HCG).

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### I. Introduction

An ectopic pregnancy is one in which the fertilized ovum is implanted and develops outside the normal endometrial cavity. It contributes significantly to the cause of maternal mortality and morbidity. The recent improvement in the management of ectopic pregnancy is due to the recognition of high risk cases, early diagnosis (even before rupture) through the use of advance technology i.e; transvaginal ultrasonography (TVS), serum beta human chorionic gonadotrophin (hCG) and laparoscopy surgery<sup>1</sup>. The main causes of tubal ectopic pregnancy are due to the damage and dysfunction of the fallopian tubes, eg; tubal adhesion, pelvic inflammatory disease, salpingitis, previous tubal surgeries, and alteration in tubal motility. The alteration in the tubal motility is mainly due to the use of certain contraceptive.

Emergency contraception (EC) has been practiced in the last 3 decades in order to prevent unwanted pregnancies after an unprotected intercourse and to protect women against unsafe abortions<sup>(2,3)</sup>. Levonorgestrel (LNG) is a synthetic derivative of progestogen, contains 0.75mg levonorgestrel. One tablet should be taken within 72hrs of exposure and another 12hrs later. However, it is now recommended to take 1.5 mg in one dose instead of two 750 µg doses<sup>(4)</sup>. After long-term and widespread use, its efficacy and safety have been confirmed in two large series in the multiple clinical trial by World Health Organization (WHO)<sup>(2,3)</sup>. Possible mechanisms of action of LNG containing ECP are inhibition of ovulation, decreased tubal motility, and certain changes in the endometrial secretory pattern<sup>(5)</sup>. Here, we present a patient with ectopic pregnancy after using LNG for EC.

### II. Case Report

The patient was a 29yrs old G3P1L1A1 with 6 weeks came to opd with complaint of missed period, lower abdominal pain and light vaginal bleeding. On examination her BP-100/60 mmhg and PR-96bpm, Per abdomen-soft, no guarding/rigidity, mild tenderness in the right iliac fossa, Per vaginal-uterus normal size, right fornix fullness present, cervical motion tenderness present. patient has taken 0.75mg levonorgestrel 12 hours and 24 hours later, after having unprotected intercourse on her follicular phase (day 12). Three weeks later patient came with above complaints to opd. The patient's urine pregnancy showed weekly positive, serum beta human Chorionic gonadotrophin (HCG) was 3680mIU/ml. Transvaginal ultrasound showed a heterogenous mass of 2.5\*3\*3.2 cm in diameter in right tube with moderate haemoperitoneum, with no evidence of intrauterine pregnancy. A diagnosis of ectopic pregnancy was made. The patient was given necessary information and written informed consent of the patient was obtained. At laparotomy, there was a ruptured ectopic pregnancy in the ampullary region of right fallopian tube and right salpingectomy performed. Postoperative period uneventful. Tubal ectopic pregnancy was proven by the chorionic villi in the right tubal tissue.

### III. Discussion

Emergency contraceptive may be considered to be safe from unwanted pregnancies after unprotected intercourse as showed by many studies. Yuzpe regimen and only LNG containing pills are the most commonly used contraceptive methods for EC worldwide, but its efficacy depends on the day of the menstrual period and as well as the time interval between the intercourse and the intake of the drug when it is used. Using this medication in the follicular period, not more than a few days close to the LH surge, is the best. The exact mechanism of action of LNG as a postcoital contraceptive is unknown. It is thought to work mainly by interruption of follicular development, inhibition of ovulation due to suppression of gonadotropins in the preovulatory period; and prevention of fertilization via decreased tubal motility and inhibition of implantation in the post-ovulatory period<sup>(5)</sup>. Altering the capacity of sperms and making cervical mucus of a consistency to prevent sperm motility into the cervical canal are also common effects of LNG-ECP<sup>(2,5)</sup>. Therefore, it is known that, LNG-EC effectively decreases the overall possibility of both for intrauterine and ectopic pregnancy after an unprotected intercourse.

Shikha rani<sup>(6)</sup> et al reported ectopic pregnancy following levonorgestrel postcoital contraceptive pill. Ghosh et<sup>(7)</sup> all reported similar case, ectopic pregnancy in nulliparous women following intake of LNG-ECP. Ahmet Karatas et al<sup>(8)</sup> reported similar case, Ectopic pregnancy after levonorgestrel emergency contraception.

We believe that report from literatures among women who does not have any identifiable risk factor for ectopic pregnancy believe the cause of ectopic pregnancy was due to unfertilized and fertilized ova which remains in the ampulla for almost 3 days<sup>(8)</sup>.

### IV. Conclusion

Emergency contraceptive pill effectively decreases the overall possibility of pregnancy after an unprotected intercourse. In case of failure, the risk that this pregnancy will be ectopic may have slightly more because of the effects of Levonorgestrel over tubal motility and ciliary functions. To be on the safe side, patients should be warned about the importance of a follow up admission if the menstruation delays more than a week or if lower abdominal pain occurs<sup>(9)</sup>. Our case is another example of this rare scenario.

### References

- [1]. Dutta's. D.C. Textbook of obstetrics. 7 edition.
- [2]. von Hertzen et al. Low dose mifepristone and two regimens of levonorgestrel for emergency contraception: a WHO multicentre randomised trial. *Lancet*. 2002;360:1803–10. [[PubMed](#)]
- [3]. Randomised controlled trial of levonorgestrel versus the Yuzpe regimen of combined oral contraceptives for emergency contraception. Task Force on Postovulatory Methods of Fertility Regulation. *Lancet*. 1998;352:428–33. [[PubMed](#)]
- [4]. Jeffercoat's. Principles of gynaecology-7<sup>th</sup> edition.
- [5]. Marions L, Hultenby Ket all. Emergency contraception with mifepristone and levonorgestrel: mechanism of action. *Obstet Gynecol*. 2002;100:65–71. [[PubMed](#)]
- [6]. Shikha rani et al reported ectopic pregnancy following levonorgestrel postcoital contraceptive pill. 10.5005/jp-journals10006-1477.
- [7]. Ghosh et al reported similar case, ectopic pregnancy in nulliparous women following intake of LNG-ECP.
- [8]. Arkierupaia Shadap et al, A CASE REPORT: ECTOPIC PREGNANCY DUE TO FAILURE OF EMERGENCY CONTRACEPTIVE, *NUJHS Vol. 5, No.1, Mach 2015, ISSN 2249-7110*.
- [9]. Ahmet Karatas et al, Ectopic pregnancy after levonorgestrel emergency contraception pISSN 2320-1770 | eISSN 2320-1789.

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