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CASE REPORT

LNG Emergency Contraceptive Pills: Risk Factor for Ectopic Pregnancy

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ABSTRACT

Hormonal emergency contraceptive drugs designed to prevent undesired pregnancy are available over the counter. In spite of availability of various contraceptive techniques, couple protection rate in our country is still inadequate. A large number of couples prefer to use emergency contraceptive pill instead of regular contraceptives. Though hormonal emergency contraceptives pills are highly effective and safe with fewer side effects, their failure rate is high when used in periovulatory period with increased chances of ectopic pregnancy.

Keywords: Hormonal emergency contraceptives, Ectopic pregnancy, Physician's oversight.

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INTRODUCTION

Hormonal emergency contraceptive methods have been developed to prevent undesired pregnancies. They have been used for more than 25 years. The commonly employed methods are—Yuzpe regimen and LNG pill.

The later method has been applied in some countries, since 1979, but only in 1994, did a coordinated study by WHO showed that its efficacy was superior to that of others.

The RHL (WHO reproductive health library) analyzed data from 81 trials involving 45,842 women. Five cases of ectopic pregnancy were reported, following use of hormonal emergency contraceptive pills of which two were following LNG pills.

LNG, containing emergency contraceptive pills may alter tubal motility, thus impairing the transport of the fertilized ovum.

We report two cases of ectopic pregnancy that occurred following use of hormonal contraceptive pill by women without apparent risk factors for ectopic pregnancy.

CASE REPORTS

Case 1

A 23-year-old woman married since 6 months reported to Gynecology OPD with complaints of pain in lower abdomen since 8 to 10 days and bleeding per vaginum (in the form of spotting) since 5 days. Her last normal cycle was about 45 days back. She reported an episode of unprotected intercourse 2 weeks after her last menstrual period followed by using LNG pill, 8 hours after that 20 days later, she developed mild pain in abdomen and bleeding per vaginum in the form of spotting. She was nulliparous. Her past menstrual cycles were regular.

Her general condition was good. She was not pale. Her pulse was 80/min regular and her BP was 110/70 mm Hg. Respiratory system (RS) and cardiovascular system (CVS) were normal. Her abdomen was soft with mild tenderness in the right iliac fossa. On per speculum examination, there was slight bleeding through the os. Per vaginal examination revealed a normal sized uterus. There was a well defined 2 × 3 cm mass in the right adnexa. It was tender.

Her urine pregnancy test was positive. TVS revealed a normal sized uterus with no evidence of intrauterine gestation sac and a right sided unruptured tubal ectopic pregnancy. She underwent laparoscopic salpingotomy and had an uneventful recovery.

Case 2

A 26-year-old unmarried patient was brought in emergency with complaint of pain in abdomen and bleeding per vaginum since 20 days. Pain had increased since 4 to 5 days. A detailed history revealed, her past menstrual cycles were regular with average flow. Her last menstrual period was about 50 days back. There was history of unprotected intercourse, 16 days after that and she had taken LNG pill after 6 hours. She had scanty bleeding per vaginum when she was overdue by 3 days. It was associated with pain in lower abdomen. There was no history of fainting episodes, nausea, vomiting, urinary or bowel complaints.

The patient was moderately built. She was pale and had tachycardia. Her pulse was 104/min and BP was 110/70 mm Hg. Respiratory and cardiovascular systems were normal. Her abdomen was soft with marked tenderness in the left iliac fossa. On per speculum examination, minimum dark colored bleeding was seen through the os. Per vaginum examination showed that cervical movements were tender, uterus was normal in size and os was closed. There was no tenderness in the right fornix. In left fornix, a vague, approximately 3 × 3 cm mass was felt with marked tenderness. Her urine pregnancy test was positive. Pelvic USG showed left-sided ruptured tubal ectopic with free fluid in the pouch of Douglas. The patient underwent emergency laparotomy and a left salpingectomy was done.

DISCUSSION

Emergency contraceptives have been developed to prevent undesired pregnancy after unprotected intercourse. Hormonal postcoital contraceptives act in several ways.

a. By suppressing/delaying ovulation when administered a few days before ovulation or at the time of LH surge.
b. By disrupting luteal function by direct action on corpus luteum.
c. By affecting tubal motility.
d. By causing significant endometrial changes with dissociation of glandular and stromal components, thus inhibiting implantation.

Among these mechanisms, alteration in tubal motility may contribute to occurrence of ectopic pregnancy. Pharmacologic levels of progesterone may relax tubal activity to such an extent that transport through isthmus does not occur.[1] Higher levels of progesterone cause ciliary dysfunction and subsequently may be a possible cause of ectopic pregnancy.[2] The failure rate of hormonal emergency contraceptives is maximum when taken in periovulatory period. In both our cases, the women had used emergency contraceptives in periovulatory period. Review of reported cases also suggest the same.

Several studies demonstrate that oral emergency contraceptives may be considered as safe and effective methods for preventing undesired pregnancy. There was no association between the use of LNG-EC pills and the risk of major congenital malformations, pregnancy complications or any other adverse pregnancy outcome.[4] Modern methods of emergency contraception can be considered safe even for women with a previous history of ectopic pregnancy.[3]

Although several contraceptive techniques are available in our country, the couple protection rate is still inadequate. Dispensation of regular birth control pill requires, detailed medical history, clinical examination and physician's oversight due to all possible harmful side effects. Emergency contraceptive pills which are even more powerful are available over the counter without physician's oversight. Future Guidelines of Consortium on National Consensus for Emergency Contraception in India, in 2001, mention that proper counseling as well as instructions on the package and monitoring should go hand in hand.[5]

Review of literature shows very few cases of ectopic pregnancy are reported following use of LNG as emergency contraceptive. Though little data is available on the risk of ectopic pregnancy following LNG use as emergency contraception; health providers should be alert to the possibility of an ectopic pregnancy in women who become pregnant or complain of lower abdominal pain after taking LNG as emergency contraceptive pill. Also there is a need to create an awareness among emergency contraceptive users, to report at the earliest, if there is lower abdominal pain or irregular bleeding to rule out ectopic pregnancy; as in our first case, she was a recently married woman but her tube could be salvaged as she reported early whereas the second patient, an unmarried girl who reported late with ruptured ectopic had to undergo salpingectomy.

Repeated use and misuse of emergency contraceptive may emerge as a new concern with its over the counter availability, especially as the opportunity for providing counseling for regular contraception is missed. To prevent delay in diagnosis of ectopic pregnancy it should be recommended that package inserts advise women that ectopic gestation can occur with emergency contraceptive pill failure.[6]

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