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## Review on Abortion-Abortifacients to explore Unethical Issues

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### ABSTRACT:

Birth control has become a major problem in the society, due to the present lifestyle. Generally, emergency contraceptive pills are used to take care of such problems. In case of failure of such pills, abortifacients are resorted to. Abortifacients may be (i) Ayurvedic or (ii) Allopathic. In normal course, abortifacients tend to be effective within 28 – 60 days of conception. If the period of administration of abortifacients increases, they may not give desired results. In such cases, surgery is the only option available. Various surgical procedures adopted for termination of pregnancy are Vacuum Aspiration and Dilation; Dilation and Evacuation (D & E); Induction Abortion, etc. Many unethical issues are found to be associated to it. These issues may cast longstanding and irreversible effects upon the human health and thereby affect the standards of human life grossly. Therefore, a detailed study into the techniques adopted for termination of pregnancy is required.

### KEY WORDS:

Abortion, Abortifacients, Mifepristone, Misoprostol, self medication

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### INTRODUCTION:

Now a days due to change in life style of young generation, misuse of emergency contraceptive pills and abortion pills is one of the major problems of the society. Now days, the print as well as view media is replete with advertisements to secure the illegal sexual relationship from the pregnancy. Various newer medicines are available with very high dose of drug stated above in respect of 10 times more quantity of drug than the earlier preparations. Now a days “i-pill” manufactured by M/s Cipla Ltd and “UNWANTED-72” manufactured by M/s Unicure (India) Pvt. Ltd are the highest selling brands as a emergency contraceptive pills in the market used frequently by the young generation without any knowledge and adverse reaction-side effects of the drugs. These both brands having “Levonorgestrol IP.....1.5 mg” which is 10 times more than the earlier pills like Mala-D and Choice pills having formulations approved in the Schedule ‘K’ of the Drugs & Cosmetics Act and Rules there Under.<sup>[1]</sup> In respect of cost factor earlier pills like choice having 28 pills packet at a Rs. 10/- price. While newly branded drugs like “i-pill” having one pill packet at a Rs. 100/- price and “UNWANTED-72” have one pill packet at a Rs. 80/- price. These all are non scheduled formulations not requiring any prescription of the doctor and no government price control. Hence manufacturing company of this type of drugs is freely advertising their products in media to misguide the young populations.

At present government of India make a strict vigilance on the abortion procedure under the ‘Medical Termination of Pregnancy Act 2002 & Rules 2003’ there under only government approved MTP centers do the abortion activity.

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Various allopathic abortion Pills containing schedule formulations requiring doctor prescription like “MT Pill Kit”, “Unwanted Kit” having Mifepristone & Misoprostol as an active ingredients used frequently buy without prescription for abortion by young generation to terminate the pregnancy after illegal sexual relationship. “MT Pill Kit”, “Unwanted Kit” like formulations having a MRP Rs.499/- which is supplied to retailers by a manufacturing company on a subsidize rate like a Rs 60/- to 65/- only.<sup>[2]</sup> Hence for selling of this type of product no marketing is required the manufacturers and on other side due big profit most of the retailers are pushing this product easily in the market resulting easy availability of the product for the self-medication. All allopathic drugs label contains following type of warning are printed as per the Government rules and regulations.

Schedule ‘H’ drug: Warning: To be sold by retail on the prescription of a Registered Medical Practitioner only.

Warning: Product is to be used only under the supervision of a service provider and in a medical facility as specified under MTP Act 2002 & MTP Rules 2003.

Warning: Misoprostol is contraindicated in pregnant woman and also in those women who are going to be pregnant in short period of time.

Many other Ayurvedic capsule preparations are also available in the market which is widely used in the urban and rural area for abortion purpose. All Ayurvedic preparation containing following type of warning is printed on the label.

Dosage: As prescribed by the physician.

Warning: Not to be given during pregnancy.

In spite of this most of the allopathic and ayurvedic abortion pills are to be used without any consultation of doctors. Various types of side effects were seen after self-medicated use of abortion pills like: severe bleeding, vaginal infection, death, ectopic pregnancy, adrenal failure, mass in the reproductive organs, diarrhoea, nausea vomiting, dizziness, headache, abdominal muscle cramping, dyspepsia, insomnia, anxiety, fever/chills.

Government has banned the formulation contains fixed dose combination of crude ergot preparation and fixed dose combination of oestrogen and progestin for some extent in past.<sup>[3][4]</sup>

Government of India plans for new norms for the advertisement of emergency contraceptive pills due to rate of misuse of product is very high in India. Public interest litigation was filed by the Hyderabad resident Shri C.S.Ranga Rajan against drug controller general of India (DCGI) in the Andhrapradesh High court for seeking ban on marketing of contraceptive pills Andhrapradesh high court issues notice to

DCGI on emergency contraceptive pills issue. DCGI replies for it but no fruitful out comes seen till date for the restriction of advertisement and restriction of sale by a law.

Termination of pregnancy has been practiced since the time immemorial. Most widely used methods for terminating pregnancy in first trimester are surgical, primarily suction evacuation. An estimated 26 million pregnancies are terminated legally throughout the world, and 20 million are terminated illegally, with more than 78,000 deaths. In India alone 10-12 million abortions take place annually, resulting in 15-20 thousand maternal deaths, mainly due to illegal abortions.<sup>[5]</sup> Non availability of trained medical help and the unwarranted secrecy surrounding the unwanted pregnancy often force women to go for illegal abortion which may be fatal at times.<sup>[6]</sup>

Due to above observations it is seen that in today’s market present scenario shows that most of the ayurvedic and allopathic abortifacient drugs are used by way of self medication without any consultation of doctors. Hence it is necessary to check the usage trends of abortion pills in the market to reduce the self medication of abortion pills for the betterment of public health.

It is a general practice of the retailers to offer ayurvedic abortifacients for the first time. Only if it fails to deliver desired results, allopathic abortifacients are resorted to. This practice is perilous, as medicated (non surgical) abortion tends to be effective only if it is adopted effectively within 24 – 60 days of conception, and the case is free from any other complications. However, ayurvedic preparations available in the market may not be effective in such a short period of time. Therefore, medical practitioners do not rely upon the credibility of the marketed ayurvedic abortifacients. They prefer allopathic ones to ayurvedic ones.

It has been observed that, pregnant women who self – administer abortifacients, (known as abortion pills in general parlance), suffer from very serious side effects, as compared to those who administer it under medical supervision. The explanation accorded this situation is that women who self administer abotifacients are not aware of the precautions associated with the administration of such pills, and the medical condition of their own body. In order to account for the various conditions and complications which may arise due to self administration of the abortion pills, and for the reasons thereof, a clinical study in this aspect is envisaged. This will also bring various benefits of medically supervised abortion to the fore.

In the current scenario of the country, it is observed that the government encourages birth control, people are interested in getting rid of the responsibility of illegal birth, and the manufacturers are interested in the sale of contraceptives. Thus, all the three factors contribute to the hike of illegal sale of contraceptives. Therefore, a detailed study on misuse of abortifacient pills is imminent.

**Abortion:****Definition of Abortion:**

The premature expulsion from uterus of the products of conception of the embryo or of a nonviable foetus. The four classic symptoms, usually present in each type of abortion, are:-

- a. uterine contractions;
- b. uterine haemorrhage;
- c. softening and dilatation of the cervix; and
- d. Presentation or expulsion of all or part of the products of conception.

Generally, premature expulsion / removal of an embryo or foetus from the mother's womb is a natural phenomenon, which may be resulted into for any / all of the following reasons:-

- a. Death of foetus;
- b. Illness or infection in mother; or
- c. Genetic or developmental defects.

The natural expulsion of embryo is referred to as miscarriage, in general parlance. However, if the exercise of expulsion of an embryo from the mother's womb is resulted into artificially, especially by employing medicinal techniques, it is referred to as medically induced abortions. They may be effected into by abortifacients or by surgery. The chief reasons for resorting to medically induced abortions include:-

- a. Unwanted foetus;
- b. Deformed foetus;
- c. Very low / no chances of foetus to live;
- d. Danger to the mother's life or health; and
- e. Premature stoppage of a natural or a pathological process.

**Abortion procedures**

Both medical and surgical abortion methods are available, yet they differ at each stage of pregnancy. Typically, once a pregnancy is past 7 weeks, only surgical abortion methods can be used. Second-trimester abortions tend to carry higher risks than first-trimester ones. Despite popular belief, it is also important to note that the American psychological association has found no evidence that single abortion can lead to mental problems.

**Medical Abortions:**

These abortions use medication to end the pregnancy. This can be accomplished with a variety of medications given either as a single pill or a series of pills. It is commonly known as the abortion Pill -- RU486 (brand name Mifeprex). Medical abortion causes an early abortion through the combination of the two medications - Mifepristone and Misoprostol. This method is FDA approved for use up to 49 days after one's last menstrual period or if a woman is 7 weeks pregnant (which equals 5 weeks since conception) and is 92% to 98% effective, allowing a woman to completely pass the pregnancy without

the use of surgery. However, any abortion carried out after 49 days of conception or last menstrual period, may be carried out by some of the medical practitioners, but it is not approved by the FDA.

**Vacuum Aspiration and Dilation and Curettage:**

This abortion procedure, also known as D&A or suction aspiration, uses gentle suction to remove all of the pregnancy tissue. There are two methods of vacuum aspiration: When this procedure is performed with a handheld suction device, it is referred to as a **manual vacuum aspiration**. Vacuum aspiration is also performed with a machine-operated suction device. Additionally, **dilation and curettage** or D&C may be necessary after a vacuum aspiration. In this procedure, a separate curette (a spoon-shaped instrument) may be used to help remove any remaining tissue that may be lining the uterus. A vacuum aspiration abortion procedure (by itself or followed by a dilation and curettage) can be performed in one visit and is an option for women until 14 weeks have passed since their last menstrual period. It is nearly 100% effective.

**Dilation and Evacuation (D&E):**

This method uses the same procedures as D&C procedure while also using additional surgical instruments (such as forceps). A D&E abortion is usually performed during the second trimester of a pregnancy (roughly 13 to 24 weeks since conception). This method is nearly 100% effective as the healthcare provider will examine the removed uterine tissue to ensure that all of it was removed and the abortion is complete. Some healthcare providers will also use an ultrasound during the procedure to confirm that all of the tissue has been removed and the pregnancy has ended.

**Induction Abortion:**

This procedure is used to end a second or third trimester pregnancy through the use of medications that trigger the start of contractions. This, in turn, expels the fetus from the uterus. Induction abortions must be done in a hospital, so that the woman can be monitored during the entire procedure. During this procedure, a woman will undergo all the steps of delivery and childbirth. Induction abortions are usually only performed if there is a medical problem or illness present in the fetus or the pregnant woman. This method minimizes risk to the woman's health, and may allow doctors to perform a more accurate autopsy on the fetus to determine exactly what was wrong. Induction abortions represent less than 1% of all abortions obtained in the United State.

**What is the Abortion Pill?**

RU486 (brand name Mifeprex) has been widely, effectively, and safely used in France, Sweden, and Great Britain for years. The abortion pill RU486 is also FDA-approved to be used in the US. The abortion pill (also considered to be a medical abortion) must be provided by a healthcare professional. In order to have a medical abortion, you will be required to visit

your healthcare provider three times. The first part of a medical abortion is taking the abortion pill RU486. Then, if necessary, RU486 must be followed up with a second medication, Misoprostol, to completely terminate the pregnancy.

#### **Self - induced abortion:-**

These are abortions performed by the pregnant women herself, with means which do not have medical recognition. Although, within the scope of 'means to carry out self - induced abortion', certain legal and over the counter medications are also included; in general parlance and understanding, it refers to alternative and sometimes perilous means. This practice is rampant in places where the practice of abortion itself is illegal.<sup>[7]</sup> If the pregnancy is not terminated completely and successfully, it may cause teratogenic danger into the foetus. Sometimes it may cause an irreparable loss to the foetus. It is easier to cause self induced abortion, during early pregnancy, and as the term of pregnancy longs, the abortion becomes difficult.<sup>[8]</sup>

Various methods adopted for self abortions, in underdeveloped areas of India include:-<sup>[9]</sup>

- a. Lifting of heavy weights;
- b. Consumption of mutton marrow;
- c. Consumption of dried henna powder;
- d. Consumption of carrot seed soup, etc.

Besides this, there are no. of other methods adopted to cause self abortion. Many of them endanger the life or health of the women. Such methods include:-

- a. physical exertion designed to bring about a miscarriage;
- b. abdominal massage receiving punches, kicks, or other blows to the abdominal area;
- c. belly flopping onto a hard surface attempted removal of the fetus with a coat-hanger or similar device inserted into the uterus through the cervix (the historical use of this method has led to the use of coat hangers as a symbol of the abortion rights movement);
- d. attempted piercing of the fetus with a knitting needle or similar device inserted into the uterus;
- e. cervix suction through the insertion of a rubber tube into the uterus via the cervix; ingesting abortifacients;
- f. high quantities of vitamin C, Pennyroyal or other substances believed to induce miscarriage; or
- g. Douching with substances believed to induce miscarriage.

It is said that African women used a carved wooden abortion stick to induce, which has often been handed down.<sup>[10]</sup>

Other dangerous methods include:-

Insertion of hazardous objects into the uterus, which can cause punctures leading to septicemia; Ingesting or douching

with harmful substances, which can have poisonous results; Receiving blows to the abdomen whether self inflicted or at the hands of another, etc.

Physical exertion, abdominal massage, and ingestion of relatively harmless substances thought to induce miscarriage - are less effective methods for induction of abortion, and may result in the fetus developing birth defects. However, abdominal massage abortion is traditionally practised in Myanmar, Thailand, Malaysia, the Philippines, and Indonesia<sup>[11][12]</sup>

Misoprostol – a synthetic prostaglandin is used as an abortifacient and is used in Countries of Latin America, where legal abortions are not available.<sup>[13]</sup> It is surely a safe method, in comparison to other methods like insertion of objects or chemicals in the uterus, the teratogenic effect offered by the drug cannot be ignored. Again it may cause severe drop in blood pressure, and if it is misused, it may cause haemorrhage in pregnant women.<sup>[14]</sup>

#### **Abortifacients :-**

A substance that induces abortion is known as abortifacient. Abortifacients that are used in animals that have mated undesirably are known as miss mating shots. Some herbal mixtures are also used as abortifacients. In so far as allopathic abortifacients are considered, Mifepristone and Misoprostol are used in combination, as a two step approach.<sup>[15,16]</sup>

#### **Pharmaceutical Abortifacients :-**

Generally, the pharmaceutical abortifacients used are of two types: - (i) Synthetic; (ii) Natural.

(i) Allopathic abortifacients :- Prostaglandin analogues like Misoprostol, or Gemeprost<sup>[17]</sup> (both synthetic prostaglandin E<sub>1</sub>(PGE<sub>1</sub>) analogues), are examples which fall in this kind. Mifepristone (a progesterone receptor antagonist or antifolate) is another such example.<sup>[17,18]</sup>

- a. Misoprostol :- It is a synthetic prostaglandin – an PGE<sub>1</sub> analogue, and is used to terminate pregnancy up to 24 or 60 days of gestation<sup>[17,19]</sup> Vaginal administration is more effective than oral one.<sup>[20]</sup> It is approved in France (trade name : GyMiso) It is generally used in combination with Mifepristone. It is used alone for self – induced abortion in Latin America, where abortion is illegal, and also in US, by those subjects who cannot afford legal abortion.<sup>[21]</sup>
- b. Mifepristone :- It is a progesterone receptor antagonist, which is known as RU – 486 also. It is marketed as Mifegyne in France and Mifeprex in US.
- c. Combination of Misoprostol and Mifepristone :- This combination is used most often, as an abortifacient. Dinoprostone, a US brand for

combination of Misoprostone and Mifeprostone is administered extra – aminiotically, to be effective in case of late abortion. (Second trimester).<sup>[18]</sup>

- (ii) **Natural Abortifacients** :- Examples thereof include brewer's yeast,<sup>[22,23]</sup> wild carrot, blue cohosh, pennyroyal, nutmeg, mugwort, slippery elm, papaya, vitamin C, bitter melon, vervain, common rue, ergot, saffron and tansy.

All these drugs may be sold 'over the counter' and may be claimed to be abortifacients, when taken either by themselves, or if taken in certain doses or mixtures. Animal studies reveal that pomegranate may be an effective ingredient.<sup>[17][24][25]</sup>

#### • **Abortion Pills**

An early medical abortion consists of taking two medicines and it normally referred to as the abortion Pill. Taking a pill to end your pregnancy is the simplest and easiest method to have an abortion. It is not invasive and is a little bit like taking the morning after pill except you take it in two doses over a 48 hours period.

The process is very simple. You will visit the abortion clinic on the first day and after the usual checks of your records and a final chance to speak with a professionally trained specialist counsellor you will be given the first tablet. The first tablet that you swallow is called Mifepristone and it stops the hormones in your body from getting ready to accept the fertilised egg. It also starts to help the lining of your uterus to break down. You might experience some period type cramps and in some cases you may feel nauseas. You will then be able to go home.

At your second appointment you will be given a second set of tablets called prostaglandin. These are usually inserted into your vagina and within four to six hours of taking this medicine it starts to work and the lining of your womb breaks down causing your pregnancy to end with it. You are able to go home straight away after this treatment too. You will experience vaginal bleeding heavier than your usual period, some period type cramps and pains and sometimes sickness and diarrhoea. All these symptoms should pass quite quickly.

The abortion pill is the most straightforward method of having an early abortion but it is not always suitable for everyone. The main factors that mean you are not able to take the abortion pill are:

- Over 35 years old and regularly smoke
- If you have an ectopic pregnancy
- If you have a medical history of heart disease, high blood pressure, liver or kidney disease
- If you are taking anti corticosteroids
- If you have an IUD
- If you have adrenal failure
- If you have any hemorrhagic disease / porphyria / are taking anti-coagulants
- If you have poorly controlled inflammatory bowel disease

If you are unsure if you are eligible to take the abortion pill you should check with your abortion clinic to see whether you are able to have this treatment. At your initial consultation you will always be able to talk over the options available to you and select the one that best suits you.

You might find that if you use an internet search engine you can find companies offering the abortion pill for sale. This may feel like an easy option and there is no need to visit a specialist clinic but it is strongly recommended that you do not purchase the pill online. You should always make sure you know it is the right medicine and one that is suited to you and your medical history. The highly trained and experienced specialists at a licensed abortion clinic are the best people to assess your needs and options.

#### **The various abortion pills for terminating pregnancy**

When a woman is in her stages of early pregnancy that is less than 49 days, the pregnancy could be terminated by the use of two medicines. The medical pregnancy is given the term – Mifeprex. These two drugs could be used for pregnancy which is of 8 weeks or less. The names of abortion pills used for medical abortion are-Mifepristone and Misoprostol. Before one could use these medicines for terminating the pregnancy there are certain factors involved in it. Any medicine is to be taken has to be done under medical supervision. One needs to take the medical advice before administrating any medicine. Take an appointment with the doctor to ensure that the pregnancy is within the safe period to use the medicines to end it.

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