Introduction

Abortion is one of the commonest problems that face all obstetricians. Abortion is defined as termination of pregnancy by any means before the fetus is sufficiently developed to survive. Another commonly used definition is the delivery of a fetus-neonate that weighs less than 500gm ***(Cunningham et al., 2005).*** It's established that 15-20% of confirmed pregnancies end in abortion ***(Shelley et al ., 2005).***More than 80% of abortions occur in the first 12 weeks of pregnancy, and the rate decreases rapidly thereafter ***(Cunningham et al., 2005).***

Abortion can be performed either medically or surgically. A randomized comparison of the efficacy and acceptability of these techniques, showed that medical abortion seemed to be slightly effective and acceptable than surgical techniques

(Crenin& Aubeny., 2004)

Surgical techniques include:

- Cervical dilatation followed by curettage.
- Vacuum aspiration (suction curettage).
- Dilatation and extraction (D&X).
- Hysterotomy.
- Hysterectomy.

(Paul et al.,2002).

Surgical evacuation of the uterus may be complicated by accidental uterine perforation with or without considerable Intra-abdominal organ damage ***(Kambiss et al., 2000).***

Dilatation and curettage, in primigravidas results in an increased risk for subsequent ectopic pregnancy, midtrimester abortion and low birth weight infants and placenta previa was reported to be increased also ***(Cunningham et al., 2005).***

Medical alternatives to surgical procedure include:

- Oxytocin intravenously.

- Intra-amniotic hyper osmotic fluid
  - 20 % saline.
  - 30 % urea.
- Prostaglandins E2, F2 alpha , E1 and analogues
  - Intra-amniotic
  - Extra ovular injection.
  - Vaginal insertion.
  - Sublingual administration.
  - Rectal insertion.
  - Parenteral injection.
  - Oral ingestion.
- Antiprogesterones –RU 486 (mifepristone).
- Various combinations of the above.

(Paul et al., 2002).

Medical abortion has been reported to achieve complete uterine evacuation ***(Sifakis et al., 2005)*** and reported to be less costly than surgical techniques ***(Creinin., 2000).***

On the other hand, there are many reported side effects of these medical alternatives. Intra-amniotic hyper osmotic fluids may result in serious complications, including death ***(Jasnosz et al., 1993).***

Other complications include cardiac failure, septic shock, peritonitis, hemorrhage, D.I.C and water intoxication. Side effects of antiprogesterones –RU 486 (mifepristone) include nausea, vomiting, gastrointestinal cramping and hemorrhage due to partial expulsion of pregnancy. Oxytocin intravenous infusion has antidiuretic action that may lead to water intoxication if aqueous fluids are infused in appreciable amount along with oxytocin. Prostaglandins E2 should be used with caution in patients with glaucoma sever hepatic or renal impairment, or asthma. It also has systemic side effects including fever, vomiting and diarrhea ***(Cunningham et al., 2005).***

The recommended combination of drugs for medical abortion is mifepristone followed by misoprostol ***(RCOG,2004 &WHO.,2003)*** Wherever mifepristone is not available, misoprostol can be used alone to cause an abortion. Mostly, to be as effective as the combined administration of mifepristone and misoprostol, misoprostol in higher and repeated doses are required ***(Cooper et al., 2005).***

Misoprostol is a synthetic prostaglandin E1 analogue that was approved by the FDA in1988 to be used in the treatment of gastro duodenal ulcer and peptic ulcer ***(Senior et al., 1993)***. The first studies published about the use of misoprostol in obstetric practice were about its use in first trimester abortion ***(Costa, 1998)***.

Misoprostol has a number of advantages for clinical obstetric and gynecologic use. It costs approximately 100 times less than other prostaglandins, has a long shelf life, is easy to administer, and does not require refrigeration. Furthermore, it is registered in more than 80 countries and is therefore widely available ***(Blanchard et al.,2002).***

Sublingual misoprostol is an effective and safe medical method for completion of abortion in missed abortion and has the following advantages: convenient to take, not as painful as vaginal administration and provides more privacy ***(Damyanti et al.,2007).*** It also avoids any oral intake of water, which may be advantageous if general anesthesia is required for surgical evacuation ***(Aronsson.,2007)***. A pharmacokinetic study showed that sublingual and oral administrations produce the quickest increase in MPA when compared with vaginal administration ***(Tang et al., 2002a).***