Contraception Post Liver Transplant

The family planning website is a useful source of data concerning relative success rates for contraception - http://www.fsrh.org/, but if you are not a member, then go to the clinical guidance section: http://www.fsrh.org/pages/Clinical_Guidance_2.asp FSRH is a faculty of the Royal College of Obstetricians and Gynaecologists - the Faculty of Sexual and Reproductive Healthcare.

Safe Sex

Irrespective of the method of contraception, it is extremely important to practise safe sex following a liver transplant, to minimise the risk of acquiring sexually transmitted diseases.

Rifampicin

The occasional patient who is receiving Rifampicin SHOULD NOT rely on hormonal contraception, due to drug interaction (powerful enzyme inducer), whether the hormonal contraception is by mouth, implant or depot injection, they are not reliable if Rifampicin is being taken.

BMI - this is an issue for the progesterone only pill and dose adjustment is required in some obese patients

Overview—An understanding of the available contraceptive methods allows the transplant team to counsel women about methods that are most consistent with their lifestyle and beliefs, and therefore most likely to be successful. Factors to consider include:

- Efficacy
- Convenience
- Duration of action
- Reversibility and time to return of fertility
- Effect on uterine bleeding
- Type and frequency of side effects and adverse events
- Protection against sexually transmitted diseases

No method of contraception is perfect. Each woman must balance the advantages of each method against the disadvantages and decide which method she prefers.

The effectiveness of different methods of contraception will be graded as:

1. Most Effective
2. Effective
3. Least Effective

1 Most effective- Long Acting Reversible Contraceptives LARC. This includes:
• Intrauterine contraception - the copper coil or the Mirena coil
• Contraceptive implants

Even these, and sterilisation are associated with a low pregnancy rate regardless of the population studied. No system is perfect.

**Coils - Intra uterine contraceptive device:**

It is thought that these may increase the potential to develop sexually transmitted infection and in particular pelvic inflammatory disease. These would not be recommended for those who are sexually promiscuous. As with all requests for advice about contraception, it is important to emphasise the need to practise safe sex.

**Contraceptive implant/Depot Injection**

It is generally thought that hormonal therapy is safe post liver transplant. Implants will avoid first pass metabolism, as will depot injections.

The significant disadvantage in post transplant patients however, is that they are often not well tolerated by the patient and there is concern over their effect on bone density. These are therefore not considered first choice.

Another disadvantage is that their effect is long lasting. If a side effect is to occur, an implant is preferable to a depot injection. Injectable contraception are still highly effective, provides reversible contraception, and avoids the need for compliance daily or near the time of sexual intercourse.

If liver function is stable and the patient is >6months post transplant, then either of these methods can be adopted.

2 **Effective** - this includes:

• Injectable contraceptives: most effective in this tier of choices
• Oral contraceptives
• Transdermal contraceptive system (patch)
• Vaginal ring

These are also associated with a very low pregnancy rate if they are used consistently and correctly, but actual pregnancy rates are substantially higher because of inconsistent/incorrect use.

3 **Least effective** - this includes other methods of contraception:

• Diaphragm
• Cervical caps
• Condoms, spermicides
• Withdrawal
Periodic abstinence are associated with actual pregnancy rates that are much higher than perfect use rates. The overall pregnancy rates associated with these methods have varied considerably among studies.

Contraception of choice post transplant

1. If the patient is practising safe sex and not sexually promiscuous, then an intra uterine coil is the preferred choice, because it is safe and effective.
2. The second choice would be the oral contraceptive pill, emphasising that there is a theoretical possibility that it might upset liver function, but this is usually short lived and reversible and that the GP needs to ensure there are no other contraindications.
3. The third choice would be an implant.
5. Fifth choice one of the above

Emergency Contraception

Introduction

Emergency contraception (also known as postcoital contraception and the morning-after pill) refers to the use of drugs or a device as an emergency measure to prevent pregnancy. Women who have had recent unprotected intercourse, including those who have had a failure of another method of contraception, are potential candidates for this intervention. It is intended for occasional or back-up use, not as a primary contraceptive method for routine use.

Emergency Hormonal Therapy

The efficacy of ulipristal acetate (UPA) has been demonstrated up to 120 hours and can be offered to all eligible women requesting EC during this time period. It is the only oral EC licensed for use between 72 and 120 hours.

The efficacy of levonorgestrel (LNG) has been demonstrated up to 96 hours; between 96 and 120 hours efficacy is unknown. Use of LNG beyond 72 hours is outside the product licence.

Emergency Copper Intrauterine contraception (IUD)

Copper Intrauterine contraception (IUD) can also be used for emergency contraception. Advantages of this method are that it provides continuing contraception after the initial event and it is more effective than oral regimens, especially in overweight/obese women. The copper-bearing intrauterine device (Cu-IUD) can be inserted up to 120 hours after the first episode of unprotected sexual intercourse (UPSI) or within 5 days of the earliest expected date of ovulation.

Intrauterine contraception should be avoided in women known to have current gonorrhea or chlamydial infection because of the increased risk of pelvic inflammatory disease. However, in the absence of acute cervicitis or other medical contraindications, there is no contraindication to inserting the IUD on the same day that the patient presents for emergency contraception.
If a patient has stable liver function post transplant, then hormonal therapy is not a concern, although there is a theoretical possibility that it might upset liver function, but this is usually short lived and reversible and that the GP needs to ensure there are no other contraindications.

If patients are jaundiced, then there is enhanced concern about hormonal therapy and insertion of a coil would be the therapy of choice under these circumstances. If the patient refuses a coil, then the risks of pregnancy in a jaundiced patient would be considerable, so hormonal therapy could be justified, so long as there are no other contraindications.