HEART DISEASE & PREGNANCY

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CONTRACEPTION

Contraception counseling is important for women heart disease because some forms of contraception can be unsafe. Despite this, many women do not receive adequate contraception counseling. (1)

APPROACH TO CONTRACEPTION COUNSELING

Contraception counseling should begin early. In women with heart disease, consideration of the following issues is important when deciding upon the optimal contraceptive: (2)

1) The risk of pregnancy for the mother (see lesions specific sections)
2) Available forms of contraception and their risks and benefits
3) Failure rates and the consequences of an unplanned pregnancy
4) Preferences of the women

In women with heart disease these issues may be complex and input may be needed from both a cardiologist and a gynecologist/obstetrician.

CONTRACEPTION OPTIONS

Contraceptive safety and risk has not specifically been examined in women with heart disease. Therefore, recommendations are extrapolated from studies in women without heart disease.

Possible contraception options include:

1. **Barrier Methods**
   In general barrier methods (condoms, diaphragms and cervical caps) do not pose a health risk to the mother, but due to the high failure rates are not recommended to women when the maternal risk of pregnancy-related complications is high.

2. **Combined Estrogen and Progestin Contraceptives**
   Combined oral contraceptives come in pill form (standard birth control pills), transdermal patches (EVRA®) or vaginal rings (NuvaRing®). These forms of contraception have very good efficacy, but the estrogen component is associated with a risk of both arterial and venous thrombosis. This form of contraception is contraindicated in women with older style mechanical heart valves (Bjork Shiley or Starr Edwards), Fontan operations, cyanotic heart disease, pulmonary hypertension, and coronary artery disease. Combined contraceptives should be used with caution in women with bileaflet mechanical valves, atrial arrhytmias, prior thromboembolic events or unoperated atrial septal defects.

3. **Progestin Only Contraceptives**
   Progestin only methods of contraception include pills (“mini pill”) intramuscular [depot medroxyprogesterone acetate (Depo-Provera®)], subcutaneous [medroxyprogesterone acetate (Depo-SubQ Provera®)], subdermal implants [etonogestrel (Implanon®)], and levonorgestrel-impregnated intrauterine systems (Mirena®). Progestin only methods are not associated with a thrombosis risk and in many cases are ideal for women with heart disease. However, the pill form has high failure rates and should not be used in women in whom pregnancy is contraindicated. Some of the newer forms of progestin only pills may be associated with lower failure rates.

4. **Intrauterine Devices (IUD)**

There are two commonly used IUD; the copper IUD and the progestogen-releasing IUD (Mirena®). Exposure to sexually transmitted disease is important to consider with this form of contraception. Intrauterine device insertion can be associated with bacteremia and subsequent endocarditis. Because of the potential vasovagal reaction, caution is advised in women with with pulmonary hypertension or Fontan circulation.

5. **Sterilization**
   Tubal ligation or insertion of intratubal stents (Essure®) may be considered for some women in whom pregnancy carries a prohibitively high risk. Because of the psychological impact of permanent sterilization, women should be educated about the highly effective alternative options. Tubal ligation is associated with procedural risks in women with complex heart disease such as Fontan circulation or Eisenmenger physiology and should only be done in centers with expertise in this group of women.

6. **Emergency Contraception**
   Emergency contraception (combined and progestin only forms), in general, are felt to be safe for women with heart disease.

More detailed reviews and recommendations on contraception in women with heart disease are available. (2,3,4,5,6,7)

References

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