Blocked Fallopian Tubes: Causes, Effects and Treatments

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If you are just in the beginning stages of the fertility process you are probably at the point where you are trying to figure out what is going on to prevent a pregnancy. One of the first tests that a woman will have done is a hysterosalpingogram (HSG) to determine whether or not there are any blockages in the fallopian tubes. Because blocked fallopian tubes account for 20-25% of all female fertility problems it is essential that women start with this test before proceeding with any fertility treatments.

1) There are many causes of tubal blockages or abnormal fallopian tubes. These causes include adhesions, infections, infectious or non-infectious pelvic inflammatory diseases, scar tissue, endometriosis and damaged tube ends or damaged fimbria.

The number one cause of blocked tubes is a Chlamydia infection. Some women have had Chlamydia and don't even know it so that the damage has already occurred without a woman even having an idea that any infection was ever there (sub clinical infection). The major clinical manifestations of genital chlamydial infection in women include mucopurulent cervicitis, endometritis and pelvic inflammatory disease.

2) Genital infection with C. trachomatis markedly enhances the risk for reproductive tract sequelae in women, including tubal factor infertility, chronic pain and ectopic pregnancy. Tubal infertility following chlamydial infection is one of the leading causes of infertility in the developed world. Treatment given to correct fallopian tube depends on the cause, the extent of damage present and fertility problems. If only one of the tubes has been blocked and other one is healthy drugs to be given to increase the chances of ovulation on the side with the open tube. If both tubes are blocked, surgery is performed to repair a fallopian tube damaged by an ectopic pregnancy or an infection. Visualization of the tube by hysterosalpingography (HSG) or by sonosalpingography (The Sion Test) has limitations. 3) Laparoscopy has the advantage of inspecting the tube and its relation to other pelvic organs. Differentiating between anatomical
obstruction or spasm at the uterine end of the tube might be achieved by selective salpingography and tubal catheterization (SSTC) and should precede IVF.

4) Transvaginal hydrolaparoscopy and fertiloscopy appear to be an alternative to hysterosalpingography as a first line procedure to investigate the tubal factor. Assessment of mucosal health by fertiloscopy is claimed to be less invasive. Fertiloscopy includes hydrolaparoscopy, tubal patency testing by dye hydrotubation, salpingoscopy and objective demonstration if the mucosa is healthy.

5) Where the mucosa is unhealthy, surgery is not justified; early referral for IVF is indicated.

Laparoscopic microsurgery should be provided, if the skills are available, where cannulation has failed.

Laparoscopic microsurgical tubal reanastomosis after tubal sterilization can also be performed using a remote-controlled robotic system.

6) There are many different surgery techniques for unblocking fallopian tubes and the differences generally involve the length of the incision, the area affected, the type of blockage present, and the method of unblocking applied. Tubal reanastomosis involves the complete removal of the blocked portion of the tube and a subsequent joining of the healthy ends. This procedure is usually done today either with Laparotomy or Laparoscopy. Tubal cannulation can be used effectively to restore patency in a proportion of cases of proximal tubal obstruction thus avoiding the need for expensive assisted reproductive techniques.

7) Another option for women with blocked tubes and hoping for a successful pregnancy is to resort to Endoscopic Fallopian Tube Recanalisation; which works best with proximal tubal occlusion & a method of Tactile Cannulation using Laparoscopic guidance that has been pioneered in India.
8) Salpingectomy involves the surgical removal of the infected or blocked fallopian tube. It is usually done on patients who have a hydrosalpinx and want to improve their chances of pregnancy through in vitro fertilization (IVF).

9) This procedure is preferred over salpingostomy which is another surgical procedure available for dealing with hydrosalpinges (fluid-filled blocked fallopian tubes).

10) Salpingostomy is a procedure that requires an incision through the affected fallopian tube.

In neosalpingostomy, the idea is to create a new opening in the part of the tube closest to the ovary while in linear salpingostomy the incision serves as the pathway to release the blockage. Neosalpingostomy is generally used in dealing with hydrosalpinges. This technique however more often than not merely provides temporary unblocking as it is a common occurrence for scar tissue growth to reseal the new opening created by neosalpingostomy thereby effectively blocking of the tube once more. When the problem is a partial blockage or a scarring in the fimbriae (fingerlike projections at the end of the fallopian tube near the ovary), Fimbrioplasty is an option where the blockage or the scar adhesions are removed and the fringed ends are rebuilt such that wafting motion of the fimbriae are restored.

Conclusion

Treatment should be individualized, based upon the findings of the tubal investigation, the couple's wishes and the costs involved. The age of the female is the most important factor that affects the outcome with both treatment options. The live birth rate per cycle with IVF is 28% at best, whereas surgical intervention on the tubes if done with microsurgical principles yields a birth rate that exceeds 45%, without increased risk of multiple pregnancy. It offers the couple multiple cycles in which to achieve conception naturally, and the opportunity to have more than one pregnancy from a single intervention. The real dilemma lies with the "hypermarketing" of IVF, and its frequent use as primary treatment for infertility. The dilemma is heightened by the fact that reconstructive tubal microsurgery is being taught and practised less and less, thereby eliminating this credible surgical option in most centres.
References


