TUBAL CANNULATION

A method of treatment for tubal blockage.

About Tubal cannulation

Tubal cannulation is a procedure where a thin catheter is advanced through the proximal portion (the part closest to the uterus) of the Fallopian tube (Pic. 1) to examine and possibly restore tubal patency.

The catheter is guided by fluoroscopy (real-time X-ray imaging) or hysteroscopy (inspection of the uterine cavity by endoscopy, Pic. 2) to the location of the Fallopian tube opening into the uterine cavity. Then it passes through the adjoining, or proximal, part of the Fallopian tube. An inflatable balloon on the tip of the catheter then may be used to open up the blockage of the tube.

Tubal cannulation may be done directly after an X-ray imaging method called hysterosalpingogram (Pic. 3). This method utilizes dye, which is instilled into the uterine cavity and the Fallopian tubes to assess the patency of the tubes. When an occlusion is found, tubal cannulation can be used to remove it.

Tubal cannulation presents several advantages over surgical methods of tubal blockage treatment, such as tuboplasty. Mainly, it is non-invasive and reduces the risk of surgery-related complications. It has also a significantly shorter recovery time, and can be done on outpatient basis. Anaesthesia is generally not needed for the procedure.

Success or failure factors

Tubal cannulation yields best results in the treatment of proximal tubal blockage – an occlusion of the tube in its part that is closest to the uterus. In such cases, it has a reported success rate of over 80%. Because of its non-invasivity and availability, it is often used as a first-line method of treatment. It is recommended to consider tubal cannulation in cases of tubal infertility before undergoing more expensive treatment options, such as IVF (in vitro fertilization) and embryo transfer.

Tubal cannulation may not be successful, if:

- the Fallopian tube blockage is localized in the distal part (closest to the ovary) or in the isthmus (the narrowest part)
- Fallopian tubes are heavily scarred
- there is an active inflammation of the Fallopian tubes
- there is tubal tuberculosis

Complications

Possible complications of tubal cannulation include:

- persisting infertility
- perforation (a tear) in the wall of the Fallopian tube
- inflammation of the abdominal cavity, called peritonitis
Prognosis

In cases of proximal tubal blockage, tubal cannulation is a non-invasive and effective treatment method. It can be used to treat tubal infertility instead of IVF and embryo transfer, without the risk of ovarian hyperstimulation (release of multiple eggs at once) and multiple pregnancies. However, it is not successful in all women and is not suitable for the treatment of distal tubal occlusion.

Gallery

Pic
The organs of the female reproductive tract.

Pic
An illustration of the hysteroscopy method. A thin laparoscope, called hysteroscope, is advanced through the vagina and cervix into the uterine cavity.

Pic
An imaging method called hysterosalpingogram, with radio-opaque dye instilled into the uterine cavity. The dye is seen spilling out of the Fallopian tubes on both sides.

Sources

"Fallopian tube obstruction (https://en.wikipedia.org/wiki/Fallopian_tube_obstruction)"—sourced from Wikipedia licensed under CC BY-SA 3.0