The Fallopian Tubes

Not So Innocent?

Dr Oseka Onuma

BSc., MJur., MBBS, FRCOG, FRANZCOG

Gynaecology. Uro-Gynaecology.

Pelvic Reconstructive Surgery.

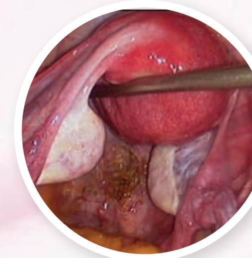
Counselling women about Fallopian tube occlusion, which is the most common method of sterilization through the surgical blocking of the fallopian tubes, is an exercise that has, in the recent past, received great scrutiny by various courts of law around the world. The reason for this lies primarily in the consequences of failure of tubal occlusion, which of course is pregnancy.

My memory of specialist training in the UK is clear regarding the importance of 'informed consent', which has a legal rather than a medical definition and involves a number of assertions, not least being the patient's 'capacity' to consent. Capacity is another legal term beyond the scope of this article.

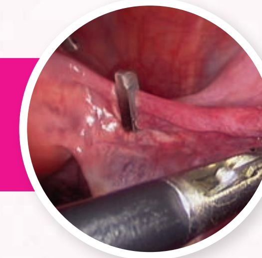
Legal guidance dictates that when counselling women about tubal occlusion for sterilization, they are informed;

1. that the procedure should be regarded as irreversible;
2. of alternatives to tubal occlusion such as using an IUCD, the oral contraceptive pill, Depoprovera, Implanon, Essure procedure or the partner having a vasectomy;
3. that the procedure has a failure rate estimated as 3-4/1000; that if reversal is requested, it is not covered by the public health system and may not be effective; and
4. of other risks associated with any surgical procedure and risks associated with tubal occlusion specifically.

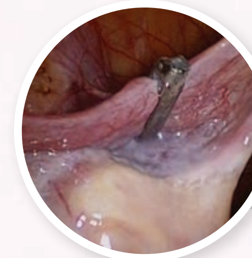
Most tubal occlusion procedures are carried out using laparoscopic ('key-hole') surgery and the majority of patients will go home the day of surgery with little down time. In principle tubal occlusion requires that the tubes are blocked so that it is not possible for sperm to pass through and come into contact with an egg released at the time of ovulation. The two most common occlusive techniques use either the Filshie clip or Fallope ring. The tubes are compressed, the blood supply interrupted and that part of the tube dies. It is not uncommon for me to see a highly anxious woman who underwent tubal occlusion in the past to present worried that she was at risk of becoming pregnant because a scan (performed for an unrelated cause) found that the Filshie clip was lying in the pelvis. They are reassured when I explain that when the tube loses its blood supply, it shrinks and some clips will eventually fall off. The tubes, however, are irreversibly damaged by this time so there is no risk of pregnancy.



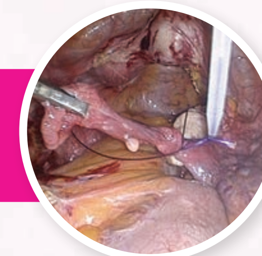
Fallopian tubes
Uterus, with intact fallopian tubes and ovaries.



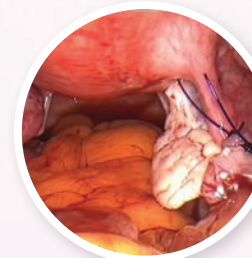
Tubal Occlusion
Application of a Filshie clip to block the right fallopian tube.



Filshie clip
Lifting the fallopian tube as application of the Filshie clip to ensure that the clip has completely blocked the tube.



Endoloop
Application of the Endoloop device over and around the right fallopian tube.



Endoloop Completed
Removal of the outer part of the right fallopian tube after application of the Endoloop device.

Over the last decade, I have been offering women intent on undergoing a tubal occlusion procedure the option of tubal removal or 'salpingectomy.' The simple reason for this is that tubal occlusion has a failure rate of 3-4/1000 and the removal of the fallopian tubes has a failure rate 1000 times less. Furthermore, removal of the fallopian tubes can also be achieved through key-hole surgery allowing the patient to be discharged on the same day with a similar down time to tubal occlusion. The patient then balances this against an increase in surgical time of approximately 10 minutes and a very slightly increased risk of blood loss.

Removal of the ovaries at the time of hysterectomy (for non-cancerous conditions such as heavy periods) is often performed as a means of trying to reduce the ovarian cancer risk. Offering a woman bilateral oophorectomy (removal of both ovaries) when they are undergoing hysterectomy after their menopause has, until the recent past, been uncontroversial and a normal part of the consent process prior to surgery. Removal of the ovaries in women undergoing hysterectomy prior to their menopause has attracted more debate and discussion about the relative merits because removal of the ovaries results in a medically induced menopause.

What general facts do we know about ovarian cancer?

1. 1 in 77 women will develop ovarian cancer before the age of 85.
2. More than 1200 women are diagnosed with ovarian cancer every year and around 800 will die from the disease.
3. Ovarian cancer is the 6th cause of cancer death in Australian women.
4. Approximately 75% of women are diagnosed with ovarian cancer at an advanced stage when the cancer is difficult to treat successfully.
5. If the disease is detected and treated at an early stage it is expected that an 80% rate of recovery can be achieved.
6. The median age for first diagnosis is 64.

Recent evidence that the ovaries continue to produce low levels of oestrogen and testosterone contributes to the conflicting evidence as to the merits of ovarian removal. Counselling women about ovarian removal remains a complex exercise and must take into account each woman's particular circumstances and outlook.

At the same time there is growing evidence that some of the more common types of high grade ovarian cancer actually arise from the outer aspects of the fallopian tubes rather than being ovarian in origin. In other words, many ovarian cancers may not actually have arisen from the ovary. This finding is likely to have a significant impact on the direction of research on ovarian cancer. More immediately though, it throws a whole new light on how we counsel women about tubal removal. The Fallopian tubes do not produce any hormones and have no known function once the woman has completed her family or decides she does not want to have a pregnancy. Removal of the tubes does not appear to complicate the surgery of hysterectomy nor does it have any effect on ovarian function. In fact, the question that I have now begun to pose to any patient of mine who has completed her family or who does not want any future pregnancy and is intending to undergo an abdominal gynaecological procedure is 'would you like me to remove your fallopian tubes at the same time.' Perhaps the time has come for women to be more proactive and ask their gynaecologist about the risks and benefits of having their fallopian tubes removed.