

# MORE ABOUT... WOMEN'S HEALTH

## CHRONIC PELVIC PAIN – AN ONGOING DILEMMA

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Chronic pelvic pain (CPP) remains an important reason for women visiting their general practitioner, and many of them end up with a referral to a gynaecologist, often without finding a satisfactory explanation for their symptoms. It is estimated that about one-third of women suffer from CPP. The description of this condition varies, but most definitions refer to intermittent or constant lower abdominal and pelvic pain of more than 6 months' duration, not associated with pregnancy. Pain occurring during intercourse and pain associated with menstruation can also be regarded as CPP, although pain occurring exclusively with menstruation (cyclical pain) usually has a gynaecological basis.

### Examination

The first step in managing CPP is to take a thorough history and to do a good clinical examination, including a pelvic assessment. A 3-month pain diary can also be of help. It is important to allow enough time for this consultation and to listen attentively to the patient's ideas about the origin of the pain. The exact nature of the pain should be elicited and its association with bladder and bowel symptoms noted, as well as any effect of posture and movement on the pain. Attention should be given to psychological and social issues that may be both a cause and a consequence of CPP. If the

history is suggestive of pelvic infection, swabs to screen for gonorrhoea and *Chlamydia* should be obtained.

Gynaecological ultrasound is of value in the initial phase as an aid to counselling and reassurance as well as for the diagnosis of any pelvic pathology, especially adnexal masses. If symptoms are suggestive of irritable bowel syndrome, dietary advice and mebeverine (135 mg three times daily, before meals) can be prescribed. An exclusion diet can help in about one-third of patients. Although a diagnostic laparoscopy is usually regarded as essential for the diagnosis of pelvic pathology, it is negative in more than 50% of cases, leaving the patient and the managing clinician without the option of definitive intervention.

### Treatment

After excluding obvious pathology, treatment for CPP is started with non-steroidal anti-inflammatory drugs and paracetamol. Other options include medroxyprogesterone acetate, which may be effective, but the pain usually resumes about 9 months after cessation of treatment. Antidepressant therapy (selective serotonin reuptake inhibitors (SSRIs)) has not been shown to be of value. A multidisciplinary approach, including a pain specialist, psychologist, physiotherapist and gynaecologist, can improve quality of life, but does not necessarily improve pain control and is not available or feasible in most settings.

### Referral

If there are symptoms or signs suggestive of pelvic pathology, a referral to a gynaecologist is the next step. The most important gynaecological causes of pelvic pain are endometriosis and adhesions.

Endometriosis can be difficult to diagnose and any suspicious lesion should be biopsied at the time of laparoscopy, as even minimal disease can be related to severe pain. With increasing availability of high-resolution laparoscopy and better training of endoscopists, more cases of endometriosis are diagnosed. In the case of a negative laparoscopy, showing photographs or videos of the normal pelvis to the patient postoperatively has not been found to be of any value in pain management.

It is difficult to prove that adhesions cause pain, except in the case of dense (severe) adhesions. Randomised trials have not shown improvement in pain after adhesiolysis in the absence of dense (severe) adhesions, but this is an area that merits more research. Surgical management of endometriotic lesions followed by hormonal therapy is best left to dedicated gynaecological endoscopists. Another surgical technique used for CPP, especially for pain associated with menstruation, is surgical nerve ablation, of which laparoscopic uterine nerve ablation (LUNA) is the most frequently performed procedure. More randomised trials are needed before LUNA can be widely recommended, as dysmenorrhoea tends to recur over time, suggesting a large placebo effect.

Pain that relates to posture or movement may be caused by nerve entrapment. In gynaecology, the ilio-inguinal nerve can become entrapped in a wide Pfannenstiel incision. Exquisite pain can be evoked in a well-demarcated area that can usually be pinpointed by the patient. Infiltration with a local anaesthetic will alleviate the pain, which also serves as a diagnostic test. Trigger points

can also be found in other pelvic and abdominal muscles and careful examination can help in the diagnosis. These trigger points often respond well to physiotherapy, especially in the hands of a dedicated physiotherapist.

### Conclusion

CPP is a common condition. Careful history and examination are required to ascertain possible aetiological factors. Therapeutic interventions are based on the underlying cause. Unexplained CPP should be treated empirically and may benefit from a multidisciplinary approach.

### Further reading

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## OVARIAN RESERVE TESTING

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Currently more women have fertility problems than ever before. Undoubtedly this rising prevalence is, at least in part, related to the increasing number of older women who wish to conceive. Although a significant number of women in their latter reproductive years fall pregnant quite readily, many others are unable to conceive despite monthly ovulatory cycles. This transition to a less fertile state is caused primarily by a reduction in ovarian reserve. When the total pool of resting follicles falls below a certain threshold, fertility is compromised.

Over the past few years there have been extensive research efforts to develop hormonal and biophysical tests for ovarian ageing. The aim is

to assess age-related female 'fertility potential' and to prognosticate on the chance of a successful conception.

Ovarian reserve reflects the quality and the quantity of the oocytes, which decline with chronological age, resulting in a decline in reproductive potential. The size of the ovarian follicle pool is established during fetal life and decreases progressively with age. One million oocytes are present at birth, decreasing to between 300 000 and 500 000 at menarche, and at the climacterium there are only about 1 000 oocytes.

Ovarian reserve tests are important in predicting the outcome of infertility treatment. As this treatment is invasive, expensive and carries a considerable emotional cost, it is essential to give each patient a realistic assessment of her individual prognosis. None of the tests currently available measures the total oocyte pool. Instead, they are based on the assumption that the number of developing follicles, or antral follicles, is related to the total oocyte pool.

### Ultrasound for ovarian reserve testing

High-resolution transvaginal ultrasound can be used to measure ovarian volume and total antral follicle count on day 3 of the menstrual cycle. In the absence of a dominant follicle or corpus luteum, most of the ovary consists of antral follicles, and therefore antral follicle count correlates well with ovarian volume. Ovarian volume is calculated by measuring three diameters (longitudinal, anteroposterior and transverse) and applying the formula  $0.53 \times \text{length} \times \text{height} \times \text{width}$ . The volume of the smallest ovary correlates with pregnancy rates. An ovarian volume of less than 3 ml has been found to predict a poor response to ovarian stimulation during infertility treatment and is an indicator of poor ovarian reserve. A mean antral follicle count of less than 5 also indicates poor ovarian reserve.

### Serum markers for ovarian reserve

Inhibin B and antimüllerian hormone are produced by developing follicles, and serum levels of these hormones can be measured in the early follicular phase to assess ovarian reserve. Low levels indicate a low total follicle pool and decreased ovarian reserve. These tests are currently not commercially available. We can, however, measure follicle-stimulating hormone (FSH), which is suppressed by high levels of inhibin B. High FSH levels ( $> 10.1 - 15 \text{ IU/l}$ ) on day 3 of the menstrual cycle correlate with low pregnancy rates after infertility treatment. Raised levels of FSH stimulate granulosa cells to produce increased levels of oestradiol in the early follicular phase. Day 3 serum oestradiol concentrations greater than  $220-330 \text{ pmol/l}$  are also indicative of poor ovarian reserve.

The clomiphene citrate challenge test (CCCT) combines the measurement of basal FSH on day 3 with FSH on day 10 after clomiphene stimulation ( $100 \text{ mg}$  clomiphene daily from day 5 to day 9). FSH concentrations  $> 10.1 \text{ IU/l}$ , either on day 3 or day 10, are indicative of poor ovarian reserve. The CCCT is a more sensitive test of ovarian reserve when compared with day 3 FSH measurement, as a significant number of patients with normal day 3 FSH concentrations have raised day 10 FSH levels and very low pregnancy rates ( $< 1.3\%$ ) after assisted reproductive techniques.

Ovarian reserve testing is indicated in women over 35 years, those with a previous poor response to ovarian stimulation, and those with a single ovary or with unexplained infertility. Ovarian reserve tests are characterised by a low negative predictive value, i.e. a normal test does not necessarily predict a good response to ovarian stimulation. The positive predictive value (poor ovarian response in the presence of an abnormal test) is, however, high. Maternal age remains an independent factor in predicting conception, and this should be emphasised when counselling patients about fertility therapy.

**Further reading**

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**THE IUD REVISITED – ITS PLACE IN SOUTH AFRICA**

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Copper-containing intrauterine contraception devices (IUDs) are the most widely used reversible method of contraception worldwide. In contrast, in sub-Saharan Africa, the use is the lowest in the world. Scientific evidence has demonstrated that the IUD is a highly effective, safe, convenient, cost-effective and low-maintenance method of contraception. One of the main advantages of long-acting reversible contraception (LARC) is that it does not depend on daily compliance.

It is estimated that at least 30% of pregnancies are unplanned, about 4.8 million South Africans are living with HIV/AIDS and there is an ever-increasing request for termination of pregnancy. The IUD as an option for LARC therefore is particularly appropriate in our practice. It should also be noted that all available LARC methods are more cost-effective than the combined oral contraceptive pill, even at 1 year of use, and the IUD is more cost-effective than the injectable contraceptives. There are many myths

and inaccurate perceptions regarding the use of IUDs among caregivers and clients, and the National Collaboration Centre for Women’s and Children’s Health in the UK has developed evidence-based guidelines to address these issues.

**Counselling**

The guidelines recommend that women requiring contraception should be given information about and offered a choice of all methods available, including LARC. The basic information on the methods should include: contraceptive efficacy, duration of use, risk and possible side-effects, non-contraceptive benefits, the procedure for initiation and removal/discontinuation and where to seek help while using the method. Health care professionals should be trained to provide this advice and manage common side-effects and problems and there should be an agreed mechanism of referral in place if the service cannot be provided.

IUD contraception is a safe contraceptive choice for the majority of women. The World Health Organization Medical Eligibility Criteria for Contraceptive Use (WHOME C) provides evidence-based recommendations to enable women to choose a method of contraception without unnecessary medical contraindications. There are only a few circumstances where WHOME C recommends that the risk usually outweighs the benefits (WHO 3) or that an IUD should not be used (WHO 4).

Women who are assessed as at higher risk of sexually transmitted infection (STI) may still choose to use an IUD, provided they receive proper counselling. The risk of pelvic inflammatory disease (PID) due to IUD use is unknown, but the risk of PID in the first 20 days following an IUD insertion is increased. Safer sex and condom use should also be promoted. WHOME C recommends that an IUD should not be inserted when a woman currently has PID, or has had PID within the last 3 months.

**The use of IUD in HIV-positive women**

Women with HIV infection, like other women, may wish to plan pregnancy, limit their family and avoid unplanned pregnancies. A high degree of protection against HIV sexual transmission is provided by consistent correct condom use; inconsistent or incorrect use is not protective. Condom accidents are reported in 1 - 12% of users, and the contraceptive method failure rate is at least 12%. Dual protection, the simultaneous use of an effective contraceptive method with consistent condom use, has been advocated to reduce the risk of unplanned pregnancy, horizontal transmission of HIV to a non-infected partner, transmission of a resistant virus to a partner with HIV infection, and the risk of acquisition of other STIs.

According to WHOME C the benefits of using an IUD generally outweigh the risk (WHO 2). WHO Selected Practice for Contraceptive Use (WHOSPR) recommend risk assessment (clinical history and physical examination) and testing for STIs and HIV prior to IUD insertion. The validity of risk assessments in different clinical settings has not been confirmed but risk may be assessed individually. Prophylactic antibiotics may be considered for women who are at increased risk of STIs if the IUD is inserted prior to the results of tests being available.

**IUD following first-trimester and second-trimester termination of pregnancy**

Insertion of an IUD immediately following induced abortion has advantages, e.g. the woman is known not to be pregnant, her motivation for effective contraception is likely to be high and she is in a health care setting. A systematic review showed that the insertion of an IUD at the time of surgical abortion is safe and practical, but rarely performed. Expulsion rates are higher after second-trimester abortion than earlier procedures. Insertion should be done within 48 hours of the medical

procedure or delayed until 4 weeks following the medical termination of pregnancy.

**Emergency contraception**

Insertion of a copper IUD, even up to 5 days after presumed ovulation, acts as very efficient emergency contraception.

**Conclusion**

The IUD should be recognised as a highly effective form of long-acting contraception. Previous information and negative attitudes must be revisited and addressed.

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