In issue 10 Jane presented Part 1 in which she discussed possible causes of PCOS. In Part 2 she focuses on the range of treatments for this condition.

The Treatment of PCOS

PHARMACEUTICAL TREATMENTS

Oral Contraceptive Pill

Doctors are generally the first port of call for teenagers and young women suffering from PCOS. Their initial reason for consulting the GP is usually not PCOS as such, but acne, hairiness or weight gain which may be more upsetting than irregular periods.
The common response of Western specialists is to prescribe the oral contraceptive pill (OCP) to these young women, which can only serve to mask the disease for many years. By misdiagnosing at this point an opportunity is lost to inform the young women that lifestyle and weight management is crucial. Often it is only when a woman wants to conceive and so stops taking the OCP that the problem is uncovered and properly diagnosed. Even young women who have not been diagnosed with PCOS, who take the OCP for some years, can show signs of this disorder when they stop the Pill. It is becoming more common to see young women whose periods do not return regularly after ceasing the Pill, only to find they exhibit signs of PCOS.

As explained in Part 1 (issue 10), administration of combined contraceptives appears to increase insulin resistance, increase triglyceride levels and promote inflammation. For these reasons, it is advisable for young women with a predisposition to PCOS to avoid this form of contraception.

**Clomifene Citrate (Clomid, Serophene)**

For PCOS sufferers with irregular cycles who wish to conceive, the first step is usually a prescription for ovulation-inducing drugs. One such drug is Clomifene Citrate, given as a 50 milligram dose for 5 – 7 days immediately following a menstrual period (the period may first need to be induced with progesterone in a woman who is not having any cycles).
The dose can be increased up to 200 mg if necessary. However, this drug has a negative effect on the cervical mucus and the lining of the endometrium, and is usually not continued past three cycles or attempts.

Women with PCOS do not respond to Clomifene Citrate with the same success as other patients with different ovulation disorders. Such failure to respond is correlated with BMI and androgen index. This has been called Clomifene resistance and often calls for the addition of insulin-lowering medications.
Metformin (Glucophage, Diaformin)

Metformin is a drug that lowers insulin, reduces blood sugar levels, may help weight loss and may also increase ovulation frequency. It is prescribed at doses between 1000 and 2500 mg/day and is also used in Type 2 diabetes. It has some common unpleasant side-effects, such as diarrhea, nausea, vomiting, abdomen bloating, and flatulence, many of which fortunately diminish with time. Metformin is classed as a Category C drug. It can cause neonatal hypoglycemia at term but is not teratogenic (i.e., it does not cause birth defects) and is usually stopped once pregnancy is confirmed. Other insulin-lowering drugs, such as the Glitazones have also been shown to induce ovulation but there is greater concern about the effects on the fetus of these drugs, compared with Metformin. It is not recommended that women trying to conceive use these drugs.

Luckily, there are alternatives for PCOS patients who are reluctant to take pharmaceutical drugs like these. Studies have shown that diet and exercise can be equally effective in terms of weight loss, increased ovulation and pregnancy rate. The studies also show that adding Metformin to such a regimen is not necessary since it confers no advantage in terms of pregnancy rates.
Gonadotrophins

If ovulation cannot be induced by Clomifene and/or Metformin, then gonadotrophins may be given in small doses. This may be within the context of an artificial insemination (AI) cycle or an IVF cycle.

Women with polycystic ovary syndrome (PCOS) usually respond to these injectable fertility medications with a degree of success. However, these women are more prone to the problems associated with the use of gonadotropins such as ovarian hyperstimulation syndrome (OHSS) and multiple pregnancy.

Statins

The use of statins, especially in PCOS patients with high cholesterol, is sometimes recommended and has been shown to reduce testosterone levels. However, statins are not advised for women who are attempting pregnancy since they may cause deformities in the baby.

SURGICAL TREATMENT

There is a surgical treatment for women with PCOS who experience ovulation difficulties. This involves destroying or removing portions of the ovaries.

Ovulation often resumes more regularly after this, possibly due to the reduced number of theca cells producing testosterone, and reduced number of resting follicles producing AMH and inhibin.
Generally, a PCOS patient who is trying to conceive will be more interested in achieving regular ovulation than in losing weight or preventing heart disease or diabetes in the future. By focusing on ovarian activity and ripening and release of eggs, doctors of Chinese medicine use treatments that are aimed primarily at re-establishing the healthy function of the ovaries. Acupuncture is particularly useful in this regard and, as you will see from the discussion of research below, has a proven track record.

**CHINESE MEDICINE TREATMENTS**

From a practical point of view, there are two different approaches to the treatment of PCOS:

- a single focus on facilitating the release of eggs and conception.
- addressing all the metabolic issues inherent in this disease, which is a more complex approach.

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The various surgical methods for doing this include:

- Wedge resection
- Ovarian drilling or cystectomy
- Ovarian diathermy.

Although it might not sound ideal, there are benefits of surgery, the main one being the avoidance of drug side-effects. These surgical procedures are sometimes offered to those women who have not had positive results from taking Clomid. Skillful drilling with laser or diathermy appears to be as effective in inducing ovulations as Clomid or gonadotrophins. However, the risks are those associated with any surgery and include damage to ovaries and the formation of adhesions.
When treating PCOS in the larger context (i.e., looking beyond ovulation induction to address general metabolic issues), the doctor of Chinese medicine will look at several layers of treatment to include Chinese herbal medicine combined with acupuncture. Naturally, lifestyle modification is an important component of treatment for a PCOS patient, regardless of the type of treatment she chooses.
It is essential that treatment of PCOS in overweight women includes an evaluation of diet and lifestyle. Anything we can do to encourage weight loss in these women will enhance ovarian function and fertility.

From a Chinese medicine viewpoint, there is no uniform diet to suit all PCOS patients. In treating weight loss, the Chinese medicinal practitioner will look at ways to boost the action of “Spleen Qi” in optimizing metabolism. The typical overweight “Damp and Spleen Qi deficient” woman is the pear shape we discussed in Part 1, someone with large thighs and bottom, or a low waist-to-height ratio (WHR).

While no-one claims to have an easy fix for losing weight, this TCM pattern is at least straightforward to diagnose and treat. If the patient complies with the treatment, weight loss will be steady. However, the pattern of obesity that we see in PCOS is a different type, more like male pattern obesity with a large abdomen. This is referred to as truncal obesity where the WHR is high and there may also be fatty deposits around the abdominal organs. In this case, the “Damp” arising from dietary or lifestyle factors, or a genetic propensity is congealed in particular sites or regions, i.e., the ovaries and the abdominal area.

In TCM terms, this pattern of obesity can be associated with “Heat” and the correct treatment takes all of this into account with prescription of certain herbal formulas and acupuncture protocols.
As mentioned in Part 1, it is the first 5–10% of body weight that needs to be lost and it is this mobilizing of “Damp” that appears to make the difference to reproductive function. There is no definitive number of kilos or pounds that needs to be lost or that a certain BMI is attained before ovarian function starts to improve. Patients will be heartened to hear that they just have to start the process of mobilization of “Damp”.

Exercise is an essential component of any weight loss program, especially where there is insulin resistance. Interestingly, exercise helps weight loss specifically around the abdomen (and reduces visceral fat), whereas diets where calories are restricted, without exercise, tend to encourage more weight loss around the thighs.

Acupuncture is used to reduce the appetite and improve metabolism. An analysis of the constitution and the reasons for weight gain by an experienced Chinese medicine doctor leads to an individualised treatment plan designed to maximise weight loss. Gentle electro acupuncture applied to points on the abdomen promotes lipolytic activity (destruction of fat cells) to reduce fat accumulation.

Using acupuncture points on the ear stimulates the auricular branch of the vagal nerve and raises serotonin levels, both of which increase tone in the smooth muscle of the stomach, thus helping to suppress appetite.
It has been shown by researchers in several countries that acupuncture can improve ovary function, as well as increase ovulation frequency. Some of these studies have found that the elevated levels of Luteinising hormone, testosterone and insulin found in PCOS patients were beneficially reduced by a course of acupuncture. Other studies have specifically examined the effect of acupuncture in reducing insulin resistance, whilst others have looked at the effect of acupuncture on rats with PCOS. Results have shown increased ovulations and reduced insulin resistance.

Some of the studies used standardized treatments using abdomen and limb points according to segmental innervation of the ovaries, whilst others applied TCM principles. Electroacupuncture was often used.

Programs that support PCOS sufferers to lose weight have found that exercise in a group context adds an important psychological component to recovery. Because “Damp” is an internal environment which can cause sluggishness, low motivation and depression, this sort of encouragement and group activity is important.

Treatment of PCOS patients without weight gain involves acupuncture treatments to stimulate the ovaries to work and, although there is less emphasis on weight loss, exercise is still encouraged to reduce insulin resistance.

Research into PCOS and TCM
The frequency of application of the treatments appears to be important, with some investigators concluding that 2 – 5 treatments per week for 4 months is necessary to return ovary function and regular ovulation. In practical terms, this is challenging for patients in time and expense, however we have set up programs offering frequent short treatments at low cost, which have proved to be of great benefit. Exactly how the acupuncture achieves its effects is not yet clear, although some researchers believe that it is mediated via the sympathetic nervous system.

A lot of the research emphasis has been on acupuncture for PCOS patients, but there are some studies on the effect of Chinese herbs for the same patients.

Some trials have compared Chinese herbs with the action of drugs that are used for some PCOS patients. Trials have favourably compared Chinese herbal preparations with Metformin, showing that those patients who took the herbs over a three month period reported a higher ovulation frequency and a greater reduction in testosterone levels and BMI compared with those who took Metformin.

A large number of trials in China have examined the combined effect of Chinese herbs and Clomid on women who were not ovulating. They typically showed better ovulation and pregnancy rates when compared with control groups given Clomid alone. When patients with PCOS prove to be resistant to the effects of Clomid, pre-treatment with Chinese herbs for two months has been shown to overcame this resistance and ovulation can be induced.
A recent review also reports that PCOS patients who take Chinese herbs at the same time as Clomid can significantly increase the chances of pregnancy. Typically the herbs used in the clinical trials are standardized formulas that boost Kidney Yin and Yang, promote Blood and Qi circulation and clear Damp.

Similarly, acupuncture can support the action of Metformin and Clomid in promoting ovulation, while at the same time attempting to ameliorate the undesirable side-effects. If a PCOS patient is not ovulating and is prescribed Clomid (which is appropriate unless they are Yin deficient and dry), then concurrent treatment with herbs and/or acupuncture has good clinical evidence basis.

CONCLUSION

To conclude, PCOS is one of the most complex and challenging endocrinologic and reproductive disorders that we see in our clinics. While there is no doubt there are inherited factors in many cases, choices women make can also play a part – the oral contraceptive pill, poor diet, excess sugar and little exercise. Adverse influences on female fetuses in utero and the stresses that today’s young girls and women are subjected to are also possible contributing factors.
We have found that Chinese medicine is well placed to find ways to unravel this clinical challenge and treat it effectively. Many of our PCOS patients have regular menstrual cycles for the first time in their lives after a couple of courses of acupuncture. And those doing IVF find that acupuncture increases their chances of success and reduces side effects.

References for this article can be found HERE and “Treatment of Infertility with Chinese Medicine” by Jane Lyttleton. Published by Elsevier 2013.

To access Jane Lyttleton’s website tap HERE

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Jane Lyttleton began her studies in science in NZ and then London with doctoral studies in genetics before succumbing to the siren song of Chinese medicine. She is the author of Treatment of Infertility with Chinese Medicine (Elsevier) published in 2004 (2nd Edition 2013) by Elsevier Science and now in its 7th reprint in English, and several other languages, and is in great demand worldwide as lecturer.

She has always had a keen interest in the way Chinese medicine can be applied to gynaecological disorders in a modern western context, and has run TCM clinics in women’s health centres and general medical centres since the early 80s. In addition to her own busy practice, she has established a number of clinics, which work with IVF clinics and universities and are providing the platform for data collection and clinical research.

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