

Subfertility: What the GP can do?

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What with the new governmental incentives: increased maternal leave, tax rebates & baby bonus schemes, the overall fertility rate amongst Singaporeans remains dismal!

The increasing age of marriage and conception, pressures of work and prevalence of PID all contribute to the problem.

The problem of subfertility (SF) is a most distressing one due in part that children being considered (and indeed they are!) the blessings and natural fruit of spousal love, are often highly and even desperately anticipated. And so, the failure to

conceive may result not only in a certain void but also the perception of personal failure and lack of masculinity or femininity of the couple thus assailed.

While Assisted Reproductive Techniques (ART) such as IVF have been well documented and discussed, it would be useful

Etiology	Freq	▲▲	H/o & P/E	Simple Inx
Male	25%	<u>Reversible</u> - varicoceles - infections - obstructive	Varicoceles? Mumps/prostatitis? STI?	UFEME/c/s
		<u>Irreversible</u> - hypogonadism - tumors - obstruction	Testicular atrophy? Gynecomastia?	FSH/LH/testosterone seminal analysis
Anovulation	25%	<u>Ovarian</u> - PCOS - tumors	Irregular menses BMI, hirsutism, acne	BBT Mid-luteal progesterone LH/FSH > 2 USS pelvis
		<u>Endocrine</u>		PRL TSH
		<u>Hypogonadism</u>		FSH
Tubal Blockage & others	25%	<u>Tubal</u> - PID - endometriosis	Dysmenorrhea? STI/ PID?	Chlamydia serology Hysterosalpingogram
		<u>Uterine</u> - fibroids, adenomyosis - malformation	Menorrhagia & dysmenorrhea?	USS pelvis
		<u>Cervical</u> - hostile mucus - cervicitis	STI? Birth trauma? Conization?	Post-coital test
Unexplained	25%	? coital factors ? psychosocial factors		

for GPs to be acquainted with helping patients who may prefer to achieve pregnancy using natural methods.

This article will discuss one such method, using as reference in part an article published in the Journal of the American Board of Family Medicine in 2008.

The following is a practical approach for the GP with an interest in this area.

First, some useful facts

Definition

SF is the involuntary inability to conceive despite 12 months unprotected sexual intercourse (SI). This could be 1^o: no previous pregnancy or 2^o: previously pregnant.

The likelihood of pregnancy per:

SI encounter = 8%,

Per cycle = 20% (NOT 100 %!)

Average time to conception = 6-8 cycles

Pertinent History

1. 1^o or 2^o subfertility?
2. Menstrual - regular, painful, heavy
3. Medical/surgical - erectile dysfunction, chronic illness, instrumentation
4. Medication - smoking alcohol, illicit drugs, cytotoxics, nitrofurantoin
5. STI - PID (Chlamydia), ectopic pregnancy

Physical examination

1. Females
 - features of PCOS, goiter
 - Pelvic examination: discharge? Uterine/ovarian enlargement? Features of endometriosis?
2. Males
 - Varicoceles? Urethral discharge? Meatal strictures?
 - Features of hypogonadism: testicular atrophy, gynecomastia

Commonest identifiable causes

1. Timing of coitus
2. PCOS
3. Endometriosis
4. PID and its sequelae

Three simple ways to confirm ovulation

1. Basal body temperature (BBT) charting: Explain that oral temperature must be taken before rising each morning. The 0.3°C ↑ which occurs just after ovulation confirms ovulation in retrospect.
2. Cervical mucus observation: this is abundant, thin and clear resembling raw albumen (due to estrogen) at the

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time off ovulation and becomes thick and scant immediately after (due to progesterone).

3. A day 21 Progesterone level > 30mmol/l confirms ovulation.

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In PCOS probably (the commonest clinical entity): weight loss, metformin and clomiphene will often induce ovulation

Seminal analysis (SA)

It is good to understand that the act of masturbation which divorces the conjugal union from the procreative potential of SI is morally objectionable to many formed consciences. Happily there is a way to circumvent this! The use of a **perforated condom** allows both natural SI without frustrating the passage of sperms and thus the possibility of conception and facilitates the collection of residual semen for analysis! The perforated condom is quickly removed and the contents placed in a sterile urine container and sent for study.

SA is done after three days of abstinence and should be delivered as soon as possible (within the hour!) avoiding extremes of temperature. Putting the container in one's trouser pocket is a simple way of keeping the container near to body temperature. Repeating the test three months later ↓ false negatives from 10% to 2%. ■CM

REFERENCES

1. Anthony, Kaye. Notes for the DRCOG 4th Ed 2001.
2. Stanford, Parnell, Boyle et al. The Journal of the American Board of Family Medicine 21 (5): 375-384 (2008)