

# Polycystic Ovarian Syndrome

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# Definition

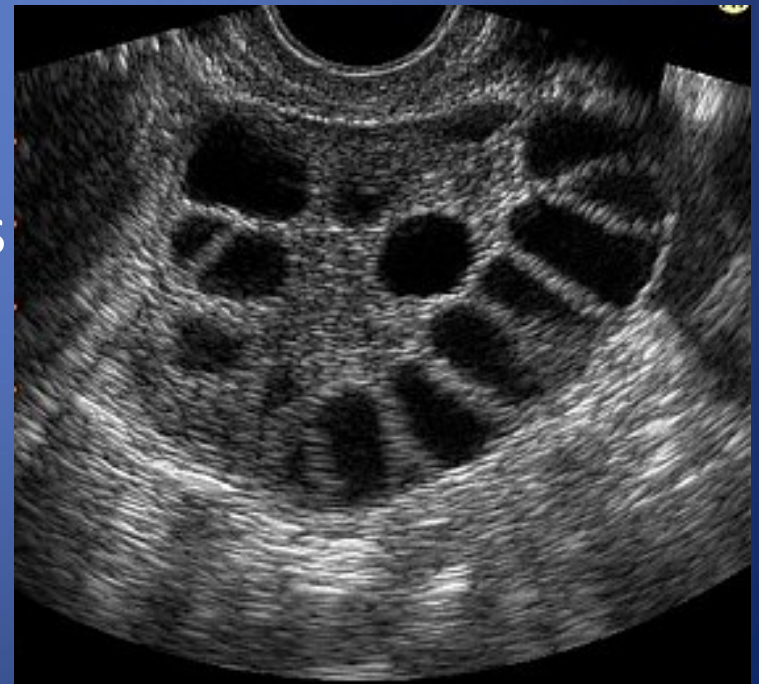
Heterogeneous condition defined by presence of 2 out of 3 of:

1 Oligo or anovulation

2 Hyperandrogenism

3 PCO

- TV ultrasound
- 12 or more follicles  
2-9mm
- volume  $>10\text{cm}^3$



# Presentation

Oligo/amenorrhoea                      commonest cause of secondary amenorrhoea

Subfertility

Hyperandrogenism                      Hirsutism/acne/balding

Can exist without clinical signs, which may become expressed in certain circumstances eg wt gain

## Examination

BMI    26% have BMI >30

Hyperandrogenism                      Ferriman

Gallwey score

# Aetiology

## Familial

Family studies – 50% of 1<sup>st</sup> degree relatives  
Dominant

Genetic links with PCOS & abnormal insulin  
metabolism

Cardiovascular disease

Diabetes

South Asians

# Pathogenesis

Stromal theca cells of the PCO -

hypersecretion of androgens



hyperandrogenism



Inhibits follicular growth

Disordered ovarian-pituitary feedback



Raised LH

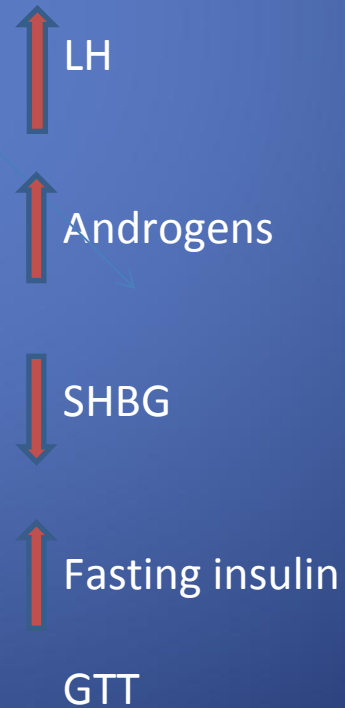


Raised testosterone

# Investigations

TV ultrasound

Bloods, early follicular phase



# Health consequences

Obesity (Central)

Insulin resistance

Endometrial hyperplasia/cancer

# Management

Focus on presenting problems

Obesity

Weight loss

Menstrual dysfunction

COCP, 3 monthly progestogen

Hyperandrogenism

Physical, antiandrogens

Infertility

Clomid, gonadotrophins/ovarian drilling

# Treatment of PCOS infertility

1. Weight loss

2. Clomiphene

3. Ovarian drilling

4. Gonadotrophins

# Clomifene citrate

Anti oestrogen - increases circulating FSH

50-100mg daily, day 2-6 of cycle

Success rates      80% inducing ovulation

40% pregnancy

10% risk multiple pregnancy

Once ovulating, cumulative conception rate rises for 10-12 cycles

# Gonadotrophins

PCO – risk of hyperstimulation

low doses, U/S tracking

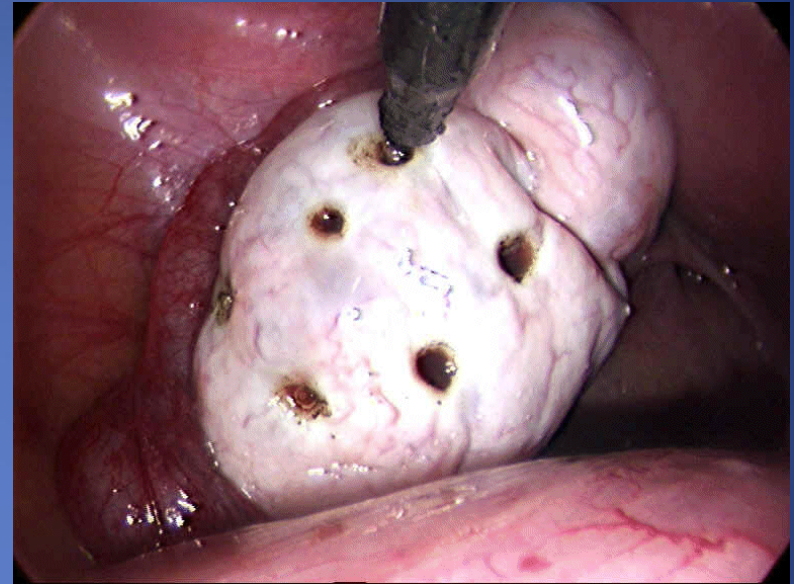
Cumulative birth rate 54% at 6 months

# Ovarian drilling

Stein Leventhal Syndrome

Wedge resection

Restoration of menstruation 80%  
Conception 50%



Destruction of androgen producing stroma → decreased androgen  
Testosterone by 50%

50% pregnancy rate in clomid resistance

Drilling – no risk multiple preg or hyperstimulation  
preg rates as good as FSH, so preferable

# Metformin

Inhibits production of hepatic glucose

Enhances tissue sensitivity to insulin so decreases insulin secretion

Ameliorates hyperandrogenism, can restore menstrual cyclicity and fertility

Conflicting study results

- May increase ovulation but no significant rise in live birth rate

- Body weight does not fall

Commonest endocrine disorder in women

Heterogeneous presentation

Treatment successful,  
aimed at managing presenting complaint

