

Progestogens

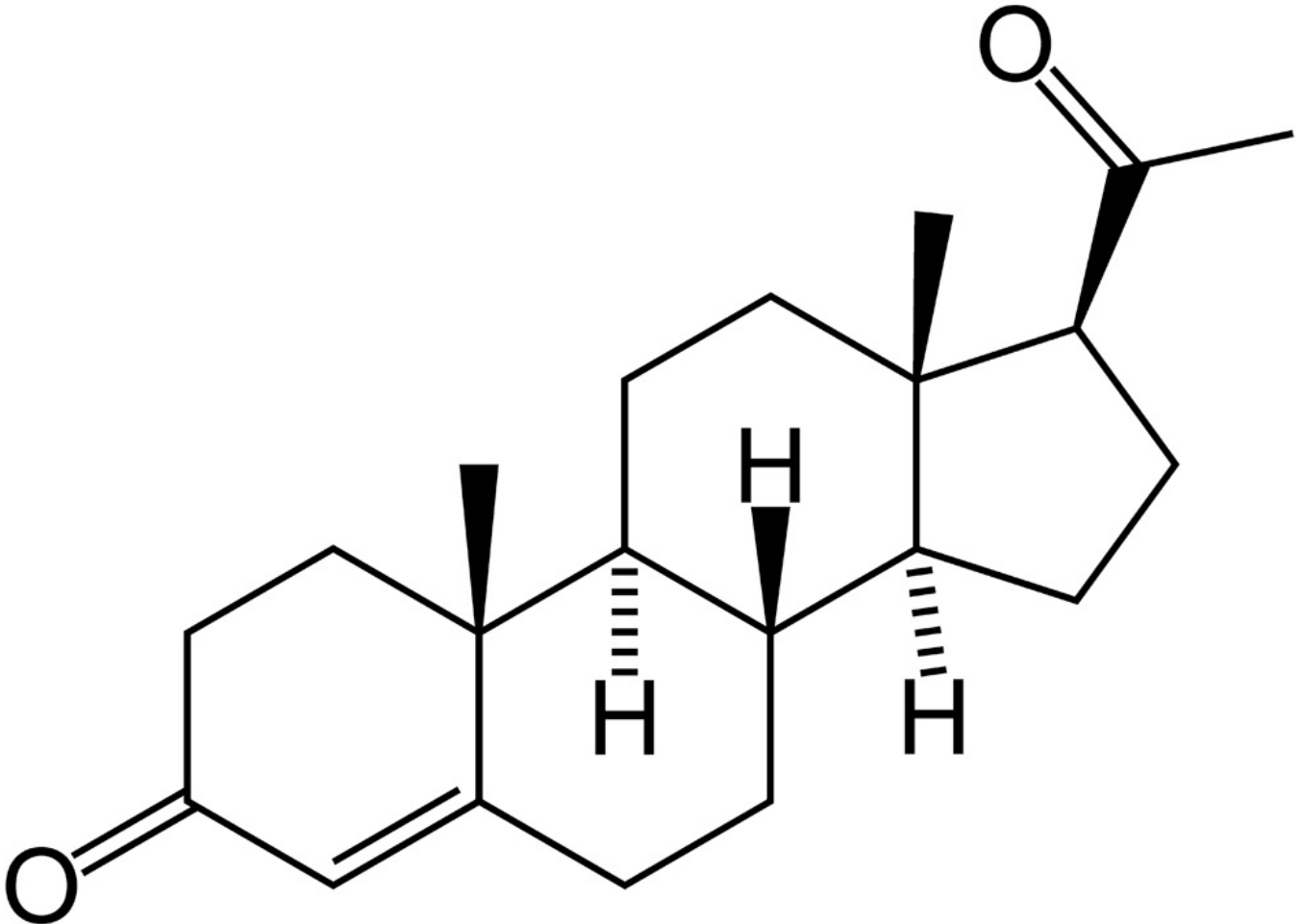
Progestogens (progestins) form group female sexual hormones with anti- estrogenic and anti- gonadotropic effect . The most important is **progesterone** .

corpus luteum, placenta

Progesterone

It is formed in the corpus luteum ovaries and placenta (after 6–8 weeks pregnancy ; 30–40x more), as intermediate product synthesis of androgens and estrogens also in the cortex of the adrenal gland and in the small amount in testes.

synthesized from cholesterol . over intermediate product pregnenolone , from which it differs in arrangement on A circle .



It binds in plasma on proteinaceous carrier . It is fast in the liver . metabolized – has very low biological availability and short biological half time . Due to active metabolism in the liver is progesterone after ineffective .

After conjugation with an acid glucuron (inactivation) in the liver form pregnanediol excludes urine .

Effect

Progestins lead to:

- **development secretory tissue in breasts glands** (acini) – lactation is , however blocked and starts until after birth u (violent decrease levels progesterone), maintained prolactin em
- **maturation of the endometrium** in the second half menstrual cycle cycle – transition from proliferative to secretory phase (zoom volume and size secretion glands and increased content glycogen u) -> **preparation uterine mucosa for reception ova** + constriction throats and thickening cervical mucus .
- **reduction effects of estrogens** on vaginal the wall
- **influence peripheral flow rate blood** - reduce thermal losses , i.e. **increases physical temperature** (on average by 0.5 ° C during luteal phase cycle – **indicator ovulation**)

Compared to [[estrogens]] they have minimal effect on song plasma proteins (do not affect plasma fibrinogen levels) . _ Significantly they influence metabolism sugars and stimulate saving fats .

Progestogens and estrogens acts synergistically – estrogens they initiate creation receptors for progesterone .

Clinical using

Main the indication is application as part of *contraception* . In the long run are also applied they can use to long term suppression of [[ovaries|ovaries]] e.g. in endometriosis . They don't have effect on invocation abortion u. *Toxicity of progestins* is low , though they can to condition rise blood pressure and a drop in HDL.

Like oral contraceptives are used too synthetic steroids – derivatives of 17alpha-hydroxyprogesterone and 17alpha-alkyl-substituted derivatives of 19-nortestosterone, medroxyprogesterone acetate (Provera) etc. Inhibitory effect on grow cells is used on treatment differentiated endometrial cancer . < noinclude >

Links

Related Articles

- Contraception
- Estrogens
- Psychophysiology of Human Sexuality
- Hormonal and biological treatment

References

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