Hyperprolactinemia

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- Baseline testosterone levels as a predictor of hypogonadism resolution in male patients with isolated hyperprolactinemia
- Pituitary Dysfunction Following Mild Traumatic Brain Injury in Female Athletes: Neuropsychological and Psychological Findings
- High Prolactin and Anemia as Factors in Female Infertility: A Cross-Sectional Study in Infertile Women of Balochistan, Pakistan
- Hyperprolactinemia caused by extra-pituitary prolactin secretion: a systematic review
- Cabergoline counteracts adipose and skeletal muscle lipid accumulation: A novel therapeutic approach to obesity?
- Bromocriptine in Rheumatic Diseases: A Review
- The hormonal regulation of men's sexual desire, arousal, and penile erection: recommendations from the fifth international consultation on sexual medicine (ICSM 2024)

Hyperprolactinaemia or hyperprolactinemia (HP) is the presence of abnormally high levels of prolactin in the blood. Normal levels are less than 500 mIU/L [20 ng/mL or µg/L] for women, and less than 450 mIU/L for men.

Etiology

Hyperprolactinemia Etiology

Clinical Features

see Lactotroph adenoma clinical features.

Differential diagnosis

1. pregnancy-related

a) during pregnancyb: 10–400 ng/ml

b) postpartum: PRL decreases ≈ 50% (to ≈ 100 ng/ml) in the first week postpartum, and is usually back to normal in 3 weeks

c) in the lactating female: suckling increases PRL, which is critical for lactogenesis (once initiated, nonpregnant PRL levels can maintain lactation).

First 2–3 months postpartum: basal PRL = 40–50 ng/ml, suckling → increases × 10–20. 3–6 months postpartum: basal PRL levels become normal or slightly elevated, and double with suckling. PRL should normalize by 6 months after weaning

2. pituitary neuroendocrine tumor

a) prolactinoma: larger prolactin microadenomas and macroadenomas usually produce PRL > 100 ng/ml

b) stalk effect (p. 753): rule of thumb, the percent chance of an elevated PRL being due to a prolactinoma is equal to one half the PRL level

c) some tumors secrete both PRL and GH

3. drugs: dopamine receptor antagonists (e.g. phenothiazines, metoclopramide), oral contraceptives (estrogens), tricyclic antidepressants, verapamil, H2 antagonists (e.g. ranitidine), some SSRIs, in particular paroxetine (Paxil®)

4. primary hypothyroidism: TRH, a prolactin releasing factor (PRF) (p. 165), will be elevated

5. empty sella syndrome

6. transient elevations in human serum prolactin (HSP) levels occur following 80% of generalized motor, 45% of complex partial, and only 15% of simple partial seizures.16 Peak levels are reached in 15–20 minutes, and gradually return to baseline over the subsequent hour.

7. breast or chest-wall trauma/surgery: usually ≤ 50 ng/ml

8. excessive exercise: usually ≤ 50 ng/ml

9. stress: in some cases the stress of having the blood test is enough to elevate PRL, anorexia nervosa

10. ectopic secretion: reported in renal cell or hepatocellular tumors, uterine fibroids, lymphomas

11. infiltrating hypothalamic tumors

12. renal failure

13. cirrhosis

14. macroprolactinemia:

Treatment

Hyperprolactinemia treatment.

Complications

Hyperprolactinemia (HPRL) and polycystic ovary syndrome (PCOS) are common causes of infertility in women of reproductive age.